



Fraunhofer
Institut
Produktionstechnik
und Automatisierung

Short report

Transfer efficiency tests for a spray gun according to European Standard EN 13966-1 (VDMA german technical rule 24 366)

prepared for

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1 General aspects

The transfer efficiency (TE) is an important parameter of paint applicators. The procedure of TE testing that has been applied is orientated at the already finished German standard for spray guns without electrostatic, being defined in the EN 13 966-1. Some other countries require similar TE test procedures.

The results and parameters from the tests are listed in protocols. The protocols are shown in the attachment.

2 Characteristics of the test procedure

The determination of the TE was performed according to EN 13 966-1. The basic characteristics of the geometry used in the present investigations are given in Fig. 1 (s. page 3). The plate is orientated in vertical direction. The spray is applied horizontally with the spray gun moving from bottom to top.

The following spray equipment was tested:

AZ30 HTE

The following coating materials were applied throughout the tests:

Standex 2K-HS Plus-Filler paint : hardener 4:1 Vol thinner: 10% viscosity: 18-20s DIN4 solid contents: 67% pot life time: 45-60min drying conditions: 30min 60°C	Standohyd basecoat -waterborne viscosity: 22-26s DIN4 solid contents: 13-24% drying conditions: 30 min 120°C
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Standocryl 2K-HS-Autolack paint : hardener 2:1 Vol viscosity: 20-25s DIN4 solid contents: 63-73 % pot life time: 2h drying conditions: 30min 60°C	Standocryl 2K-HS-Klarlack paint : hardener 2:1 Vol viscosity: 22s DIN4 solid contents: 63-73 % pot life time: 1,5h drying conditions: 30min 60°C
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The applicator was tested with a dynamic inlet air pressure of atomizing air of 1,75 and 2 bar, the spray distance was 150 resp. 200 mm (each given by the manufacturer). Shaping air and paint flow regulation were fully open.

The tests were performed with an industrial 6-axis-paint robot FANUC P-200. The spray gun was mounted on an adaptor on which the trigger was pulled pneumatically to enable automatic mode.

The spray gun was weighed on a balance both before and after coating to an accuracy of 0,1 g. The total spray time was 8,1 sec (given by robot control).

The test foils were weighed on a precision balance both before and after coating and drying to an accuracy of 0,1 mg. The robot speed was 200 mm/s. Thus, in combination with the height of the foil of 200 mm, it follows a coating time of 1 sec. The spray was applied horizontally with the spray gun moving from bottom to top. The schematical test setup is shown in fig. 1.

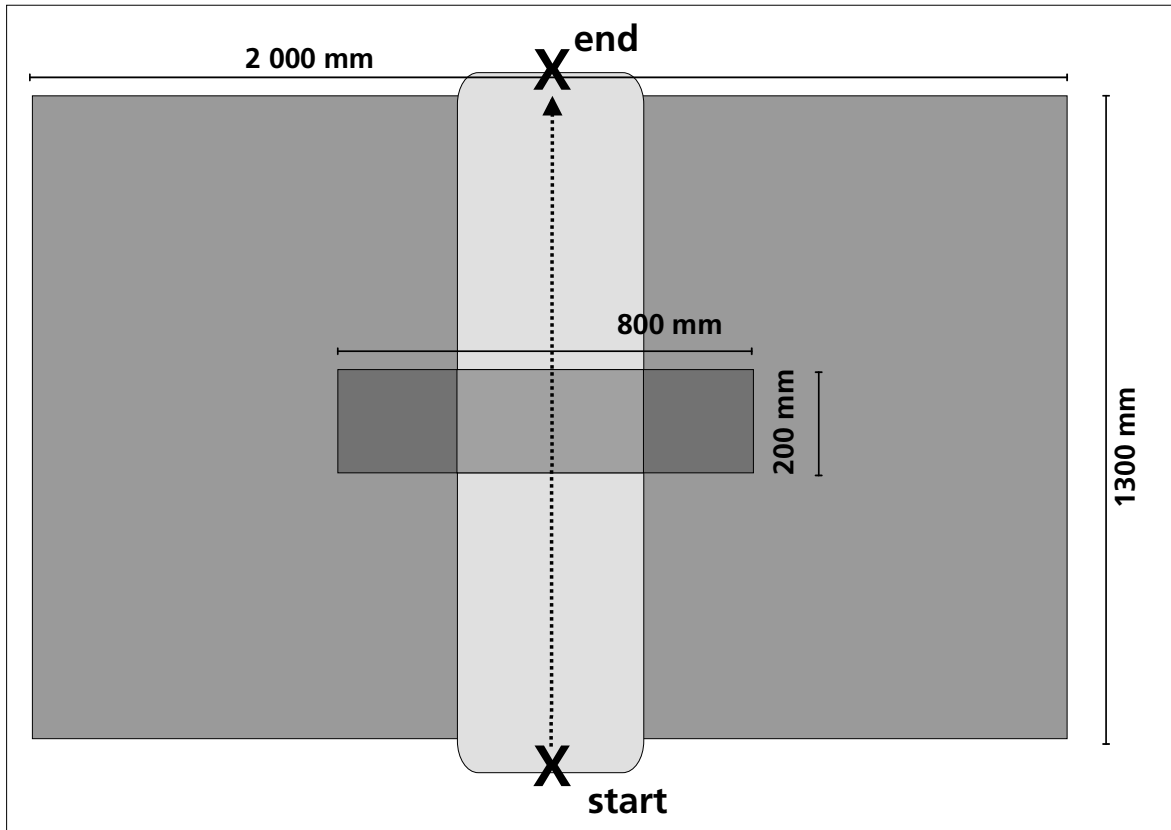


Fig. 1: test setup



3 Results

The following values for the TE were obtained:

AZ30 HTE / nozzle 1,8 / 2K-HS Plus-Filler

#	Inlet air pressure [bar]	Spray distance [mm]	TE (%) (mean)	Paint flow (g/min)
1	1,75	150	87	approx. 250
2	1,75	200	83	approx. 250
3	2	150	86	approx. 260
4	2	200	82	approx. 260

AZ30 HTE / nozzle 1,3 / Standox basecoat - waterborne

#	Inlet air pressure [bar]	Spray distance [mm]	TE (%) (mean)	Paint flow (g/min)
1	1,75	150	83	approx. 150
2	1,75	200	78	approx. 150
3	2	150	82	approx. 170
4	2	200	77	approx. 170



AZ30 HTE / nozzle 1,5 / Standox 2K-HS-Autolack

#	Inlet air pressure [bar]	Spray distance [mm]	TE (%) (mean)	Paint flow (g/min)
1	1,75	150	79	approx. 115
2	1,75	200	74	approx. 115
3	2	150	79	approx. 120
4	2	200	75	approx. 120

AZ30 HTE / nozzle 1,3 / Standox 2K-HS-Klarlack

#	Inlet air pressure [bar]	Spray distance [mm]	TE (%) (mean)	Paint flow (g/min)
1	1,75	150	74	approx. 110
2	1,75	200	70	approx. 110
3	2	150	74	approx. 160
4	2	200	70	approx. 160



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4 Appendix - protocols according to VDMA technical rule 24 366

**Measurement of transfer efficiency (TE) - test summary form for conventional atomizers
according VDMA-Einheitsblatt 24 366**

atomizer		pneumatic atomizer:	
Air cap / nozzle	LK / nozzle 1,5mm	paint feed rate [g/min]	114,0
		inlet air volume flows [l/min]	
distance [mm]	150	inlet air pressure (dyn.) [bar]	1,75
type of manipulator	Standocryl 2K-HS grün		
coating properties			
		airless:	
	/	air pressure (dyn.) [bar]	/
solids content of paint [mass %]	60,243	paint feed rate [ml/min]	/
viscosity	25s DIN 4		
spray booth conditions:			
temperature / humidity [°C / %]	21°C / 64%		
air velocity [m/s]	0,3 m/s		
air flow calibration	<input type="radio"/> DIN <input checked="" type="radio"/> ISO		
method			
x flat		o panel	
size background [mm]	B x H 2 000 * 1 000 mm		
size sheet (foil) [mm]	B x H 1 000 * 200 mm	size sheet (foil) [mm]	
orientation of panel	<input type="radio"/> vertical <input checked="" type="radio"/> horizontal	orientation of panel	<input type="radio"/> senkrecht <input checked="" type="radio"/> waagrecht
movement of applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertical	spatial arrangement applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertikal
stroke speed [mm/s]	200		
mass uncoated sheet (foil) [g]	33,391	Comments Shaping air and paint flow regulation fully open Trial 1 of 3	
mass coated sheet (foil) [g]	34,287		
mass on sheet (foil) [g]	0,896		
mass difference [g]	1,148		
TE [%]	78		

**Measurement of transfer efficiency (TE) - Test summary form for conventional atomizers
according VDMA-Einheitsblatt 24 366**

atomizer		pneumatic atomizer:	
Air cap / nozzle	LK / nozzle 1,5mm	paint feed rate [g/min]	114,0
		inlet air volume flows [l/min]	
distance [mm]	150	inlet air pressure (dyn.) [bar]	1,75
type of manipulator	Standocryl 2K-HS grün		
coating properties			
		airless:	
	/	air pressure (dyn.) [bar]	/
solids content of paint [mass %]	60,243	paint feed rate [ml/min]	/
viscosity	25s DIN 4		
spray booth conditions:			
temperature / humidity [°C / %]	21°C / 64%		
air velocity [m/s]	0,3 m/s		
air flow calibration	<input type="radio"/> DIN <input checked="" type="radio"/> ISO		
method			
<input checked="" type="radio"/> flat		<input type="radio"/> panel	
size background [mm]	B x H 2 000 * 1 000 mm		
size sheet (foil) [mm]	B x H 1 000 * 200 mm	size sheet (foil) [mm]	
orientation of panel	<input type="radio"/> vertical <input checked="" type="radio"/> horizontal	orientation of panel	<input type="radio"/> vertical <input checked="" type="radio"/> horizontal
movement of applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertical	movement of applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertical
stroke speed [mm/s]	200		
mass uncoated sheet (foil) [g]	34,296	Comments Shaping air and paint flow regulation fully open Trial 2 of 3	
mass coated sheet (foil) [g]	35,192		
mass on sheet (foil) [g]	0,897		
mass difference [g]	1,142		
TE [%]	79		

**Measurement of transfer efficiency (TE) - test summary form for conventional atomizers
according VDMA-Einheitsblatt 24 366**

atomizer		pneumatic atomizer:	
Air cap / nozzle	LK / nozzle 1,5mm	paint feed rate [g/min]	114,0
		inlet air volume flows [l/min]	
distance [mm]	150	inlet air pressure (dyn.) [bar]	1,75
type of manipulator	Standocryl 2K-HS grün		
coating properties		airless:	
	/	air pressure (dyn.) [bar]	/
solids content of paint [mass %]	60,234	paint feed rate [ml/min]	/
viscosity	25s DIN 4		
spray booth conditions:			
temperature / humidity [°C / %]	21°C / 64%		
air velocity [m/s]	0,3 m/s		
air flow calibration	<input type="radio"/> DIN <input checked="" type="radio"/> ISO		
method			
x flat		o panel	
size background [mm]	B x H 2 000 * 1 000 mm		
size sheet (foil) [mm]	B x H 1 000 * 200 mm	size sheet (foil) [mm]	
orientation of panel	<input type="radio"/> vertical <input checked="" type="radio"/> horizontal	orientation of panel	<input type="radio"/> senkrecht <input checked="" type="radio"/> waagrecht
movement of applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertical	spatial arrangement applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertikal
stroke speed [mm/s]	200		
mass uncoated sheet (foil) [g]	34,527	Comments Shaping air and paint flow regulation fully open Trial 3 of 3	
mass coated sheet (foil) [g]	35,428		
mass on sheet (foil) [g]	0,901		
mass difference [g]	1,142		
TE [%]	79		

**Measurement of transfer efficiency (TE) - test summary form for conventional atomizers
according VDMA-Einheitsblatt 24 366**

atomizer		pneumatic atomizer:	
Air cap / nozzle	LK / nozzle 1,3mm	paint feed rate [g/min]	148,0
		inlet air volume flows [NI/min]	
distance [mm]	150	inlet air pressure (dyn.) [bar]	1,75
type of manipulator	Standohyd Basecoat		
coating properties		airless:	
	/	air pressure (dyn.) [bar]	/
solids content of paint [mass %]	16,386	paint feed rate [ml/min]	/
viscosity	20s DIN 4		
spray booth conditions:			
temperature / humidity [°C / %]	21°C / 64%		
air velocity [m/s]	0,3 m/s		
air flow calibration	<input type="radio"/> DIN <input checked="" type="radio"/> ISO		
method			
x flat		o panel	
size background [mm]	B x H 2 000 * 1 000 mm		
size sheet (foil) [mm]	B x H 1 000 * 200 mm	size sheet (foil) [mm]	
orientation of panel	<input type="radio"/> vertical <input checked="" type="radio"/> horizontal	orientation of panel	<input type="radio"/> senkrecht <input checked="" type="radio"/> waagerecht
movement of applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertical	spatial arrangement applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertikal
stroke speed [mm/s]	200		
mass uncoated sheet (foil) [g]	35,456	Comments Shaping air and paint flow regulation fully open Trial 1 of 3	
mass coated sheet (foil) [g]	35,792		
mass on sheet (foil) [g]	0,337		
mass difference [g]	0,407		
TE [%]	82,7		

**Measurement of transfer efficiency (TE) - Test summary form for conventional atomizers
according VDMA-Einheitsblatt 24 366**

atomizer		pneumatic atomizer:	
Air cap / nozzle	LK / nozzle 1,3mm	paint feed rate [g/min]	148,0
		inlet air volume flows [NI/min]	
distance [mm]	150	inlet air pressure (dyn.) [bar]	1,75
type of manipulator	Standohyd Basecoat		
coating properties		airless:	
	/	air pressure (dyn.) [bar]	/
solids content of paint [mass %]	16,386	paint feed rate [ml/min]	/
viscosity	20s DIN 4		
spray booth conditions:			
temperature / humidity [°C / %]	21°C / 64%		
air velocity [m/s]	0,3 m/s		
air flow calibration	<input type="radio"/> DIN <input checked="" type="radio"/> ISO		
method			
x flat		o panel	
size background [mm]	B x H 2 000 * 1 000 mm		
size sheet (foil) [mm]	B x H 1 000 * 200 mm	size sheet (foil) [mm]	
orientation of panel	<input type="radio"/> vertical <input checked="" type="radio"/> horizontal	orientation of panel	<input type="radio"/> vertical <input checked="" type="radio"/> horizontal
movement of applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertical	movement of applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertical
stroke speed [mm/s]	200		
mass uncoated sheet (foil) [g]	31,553	Comments Shaping air and paint flow regulation fully open Trial 2 of 3	
mass coated sheet (foil) [g]	31,887		
mass on sheet (foil) [g]	0,334		
mass difference [g]	0,405		
TE [%]	82,3		

**Measurement of transfer efficiency (TE) - test summary form for conventional atomizers
according VDMA-Einheitsblatt 24 366**

atomizer		pneumatic atomizer:	
Air cap / nozzle	LK / nozzle 1,3mm	paint feed rate [g/min]	148,0
		inlet air volume flows [NI/min]	
distance [mm]	150	inlet air pressure (dyn.) [bar]	1,75
type of manipulator	Standohyd Basecoat		
coating properties		airless:	
	/	air pressure (dyn.) [bar]	/
solids content of paint [mass %]	16,386	paint feed rate [ml/min]	/
viscosity	20s DIN 4		
spray booth conditions:			
temperature / humidity [°C / %]	21°C / 64%		
air velocity [m/s]	0,3 m/s		
air flow calibration	<input type="radio"/> DIN <input checked="" type="radio"/> ISO		
method			
x flat		o panel	
size background [mm]	B x H 2 000 * 1 000 mm		
size sheet (foil) [mm]	B x H 1 000 * 200 mm	size sheet (foil) [mm]	
orientation of panel	<input type="radio"/> vertical <input checked="" type="radio"/> horizontal	orientation of panel	<input type="radio"/> senkrecht <input checked="" type="radio"/> waagerecht
movement of applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertical	spatial arrangement applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertikal
stroke speed [mm/s]	200		
mass uncoated sheet (foil) [g]	37,819	Comments Shaping air and paint flow regulation fully open Trial3 of 3	
mass coated sheet (foil) [g]	38,155		
mass on sheet (foil) [g]	0,336		
mass difference [g]	0,404		
TE [%]	83,1		

**Measurement of transfer efficiency (TE) - test summary form for conventional atomizers
according VDMA-Einheitsblatt 24 366**

atomizer		pneumatic atomizer:	
Air cap / nozzle	LK / nozzle 1,8mm	paint feed rate [g/min]	248,0
		inlet air volume flows [NI/min]	
distance [mm]	150	inlet air pressure (dyn.) [bar]	175
type of manipulator	Standex 2KPrimer		
coating properties		airless:	
	/	air pressure (dyn.) [bar]	/
solids content of paint [mass %]	64,946	paint feed rate [ml/min]	/
viscosity	20 s DIN 4		
spray booth conditions:			
temperature / humidity [°C / %]	21°C / 64%		
air velocity [m/s]	0,3 m/s		
air flow calibration	<input type="radio"/> DIN <input checked="" type="radio"/> ISO		
method			
x flat		o panel	
size background [mm]	B x H 2 000 * 1 000 mm		
size sheet (foil) [mm]	B x H 1 000 * 200 mm	size sheet (foil) [mm]	
orientation of panel	<input type="radio"/> vertical <input checked="" type="radio"/> horizontal	orientation of panel	<input type="radio"/> senkrecht <input checked="" type="radio"/> waagerecht
movement of applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertical	spatial arrangement applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertikal
stroke speed [mm/s]	200		
mass uncoated sheet (foil) [g]		Comments Shaping air and paint flow regulation fully open Trial 1 of 3	
mass coated sheet (foil) [g]	37,9807		
mass on sheet (foil) [g]	2,338		
mass difference [g]	2,646		
TE [%]	88,3		

**Measurement of transfer efficiency (TE) - Test summary form for conventional atomizers
according VDMA-Einheitsblatt 24 366**

atomizer		pneumatic atomizer:	
Air cap / nozzle	LK / nozzle 1,8mm	paint feed rate [g/min]	248,0
		inlet air volume flows [NI/min]	
distance [mm]	150	inlet air pressure (dyn.) [bar]	1,75
type of manipulator	Standex 2K Primer		
coating properties		airless:	
	/	air pressure (dyn.) [bar]	/
solids content of paint [mass %]	64,946	paint feed rate [ml/min]	/
viscosity	20s DIN 4		
spray booth conditions:			
temperature / humidity [°C / %]	21°C / 64%		
air velocity [m/s]	0,3 m/s		
air flow calibration	<input type="radio"/> DIN <input checked="" type="radio"/> ISO		
method			
x flat		o panel	
size background [mm]	B x H 2 000 * 1 000 mm		
size sheet (foil) [mm]	B x H 1 000 * 200 mm	size sheet (foil) [mm]	
orientation of panel	<input type="radio"/> vertical <input checked="" type="radio"/> horizontal	orientation of panel	<input type="radio"/> vertical <input checked="" type="radio"/> horizontal
movement of applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertical	movement of applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertical
stroke speed [mm/s]	200		
mass uncoated sheet (foil) [g]	40,3791	Comments Shaping air and paint flow regulation fully open Trial 2 of 3	
mass coated sheet (foil) [g]	42,736		
mass on sheet (foil) [g]	2,357		
mass difference [g]	2,709		
TE [%]	87,0		

**Measurement of transfer efficiency (TE) - test summary form for conventional atomizers
according VDMA-Einheitsblatt 24 366**

atomizer		pneumatic atomizer:	
Air cap / nozzle	LK / nozzle 1,8mm	paint feed rate [g/min]	248,0
		inlet air volume flows [NL/min]	
distance [mm]	150	inlet air pressure (dyn.) [bar]	1,75
type of manipulator	Standex 2K Primer		
coating properties		airless:	
	/	air pressure (dyn.) [bar]	/
solids content of paint [mass %]	64,946	paint feed rate [ml/min]	/
viscosity	20s DIN 4		
spray booth conditions:			
temperature / humidity [°C / %]	21°C / 64%		
air velocity [m/s]	0,3 m/s		
air flow calibration	o DIN x ISO		
method			
x flat		o panel	
size background [mm]	B x H 2 000 * 1 000 mm		
size sheet (foil) [mm]	B x H 1 000 * 200 mm	size sheet (foil) [mm]	
orientation of panel	o vertical x horizontal	orientation of panel	senkrecht waagerecht
movement of applicator	o horizontal x vertical	spatial arrangement applicator	horizontal vertikal
stroke speed [mm/s]	200		
mass uncoated sheet (foil) [g]		Comments Shaping air and paint flow regulation fully open Trial3 of 3	
mass coated sheet (foil) [g]	35,7087		
mass on sheet (foil) [g]	2,347		
mass difference [g]	2,693		
TE [%]	87,1		

**Measurement of transfer efficiency (TE) - test summary form for conventional atomizers
according VDMA-Einheitsblatt 24 366**

atomizer		pneumatic atomizer:	
Air cap / nozzle	LK / nozzle 1,5mm	paint feed rate [g/min]	122,0
		inlet air volume flows [l/min]	
distance [mm]	150	inlet air pressure (dyn.) [bar]	2
type of manipulator	Standocryl 2K-HS grün		
coating properties			
		airless:	
	/	air pressure (dyn.) [bar]	/
solids content of paint [mass %]	60,243	paint feed rate [ml/min]	/
viscosity	25s DIN 4		
spray booth conditions:			
temperature / humidity [°C / %]	21°C / 64%		
air velocity [m/s]	0,3 m/s		
air flow calibration	<input type="radio"/> DIN <input checked="" type="radio"/> ISO		
method			
<input checked="" type="radio"/> flat		<input type="radio"/> panel	
size background [mm]	B x H 2 000 * 1 000 mm		
size sheet (foil) [mm]	B x H 1 000 * 200 mm	size sheet (foil) [mm]	
orientation of panel	<input type="radio"/> vertical <input checked="" type="radio"/> horizontal	orientation of panel	<input type="radio"/> senkrecht <input checked="" type="radio"/> waagrecht
movement of applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertical	spatial arrangement applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertikal
stroke speed [mm/s]	200		
mass uncoated sheet (foil) [g]	36,776	Comments Shaping air and paint flow regulation fully open Trial 1 of 3	
mass coated sheet (foil) [g]	37,745		
mass on sheet (foil) [g]	0,969		
mass difference [g]	1,238		
TE [%]	78,2		

**Measurement of transfer efficiency (TE) - Test summary form for conventional atomizers
according VDMA-Einheitsblatt 24 366**

atomizer		pneumatic atomizer:	
Air cap / nozzle	LK / nozzle 1,5mm	paint feed rate [g/min]	122,0
		inlet air volume flows [l/min]	
distance [mm]	150	inlet air pressure (dyn.) [bar]	2
type of manipulator	Standocryl 2K-HS grün		
coating properties			
		airless:	
	/	air pressure (dyn.) [bar]	/
solids content of paint [mass %]	60,243	paint feed rate [ml/min]	/
viscosity	25s DIN 4		
spray booth conditions:			
temperature / humidity [°C / %]	21°C / 64%		
air velocity [m/s]	0,3 m/s		
air flow calibration	<input type="radio"/> DIN <input checked="" type="radio"/> ISO		
method			
<input checked="" type="radio"/> flat		<input type="radio"/> panel	
size background [mm]	B x H 2 000 * 1 000 mm		
size sheet (foil) [mm]	B x H 1 000 * 200 mm	size sheet (foil) [mm]	
orientation of panel	<input type="radio"/> vertical <input checked="" type="radio"/> horizontal	orientation of panel	<input type="radio"/> vertical <input checked="" type="radio"/> horizontal
movement of applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertical	movement of applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertical
stroke speed [mm/s]	200		
mass uncoated sheet (foil) [g]	42,113	Comments Shaping air and paint flow regulation fully open Trial 2 of 3	
mass coated sheet (foil) [g]	43,086		
mass on sheet (foil) [g]	0,973		
mass difference [g]	1,223		
TE [%]	79,6		

**Measurement of transfer efficiency (TE) - test summary form for conventional atomizers
according VDMA-Einheitsblatt 24 366**

atomizer		pneumatic atomizer:	
Air cap / nozzle	LK / nozzle 1,5mm	paint feed rate [g/min]	122,0
		inlet air volume flows [l/min]	
distance [mm]	150	inlet air pressure (dyn.) [bar]	2
type of manipulator	Standocryl 2K-HS grün		
coating properties			
		airless:	
	/	air pressure (dyn.) [bar]	/
solids content of paint [mass %]	60,234	paint feed rate [ml/min]	/
viscosity	25s DIN 4		
spray booth conditions:			
temperature / humidity [°C / %]	21°C / 64%		
air velocity [m/s]	0,3 m/s		
air flow calibration	<input type="radio"/> DIN <input checked="" type="radio"/> ISO		
method			
x flat		o panel	
size background [mm]	B x H 2 000 * 1 000 mm		
size sheet (foil) [mm]	B x H 1 000 * 200 mm	size sheet (foil) [mm]	
orientation of panel	<input type="radio"/> vertical <input checked="" type="radio"/> horizontal	orientation of panel	<input type="radio"/> senkrecht <input checked="" type="radio"/> waagrecht
movement of applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertical	spatial arrangement applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertikal
stroke speed [mm/s]	200		
mass uncoated sheet (foil) [g]	34,756	Comments Shaping air and paint flow regulation fully open Trial 3 of 3	
mass coated sheet (foil) [g]	35,7234		
mass on sheet (foil) [g]	0,968		
mass difference [g]	1,220		
TE [%]	79,4		

**Measurement of transfer efficiency (TE) - test summary form for conventional atomizers
according VDMA-Einheitsblatt 24 366**

atomizer		pneumatic atomizer:	
Air cap / nozzle	LK / nozzle 1,3mm	paint feed rate [g/min]	168,0
		inlet air volume flows [NI/min]	
distance [mm]	150	inlet air pressure (dyn.) [bar]	2
type of manipulator	Standohyd Basecoat		
coating properties		airless:	
	/	air pressure (dyn.) [bar]	/
solids content of paint [mass %]	16,386	paint feed rate [ml/min]	/
viscosity	20 s DIN 4		
spray booth conditions:			
temperature / humidity [°C / %]	21°C / 64%		
air velocity [m/s]	0,3 m/s		
air flow calibration	<input type="radio"/> DIN <input checked="" type="radio"/> ISO		
method			
x flat		o panel	
size background [mm]	B x H 2 000 * 1 000 mm		
size sheet (foil) [mm]	B x H 1 000 * 200 mm	size sheet (foil) [mm]	
orientation of panel	<input type="radio"/> vertical <input checked="" type="radio"/> horizontal	orientation of panel	<input type="radio"/> senkrecht <input checked="" type="radio"/> waagerecht
movement of applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertical	spatial arrangement applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertikal
stroke speed [mm/s]	200		
mass uncoated sheet (foil) [g]	35,012	Comments Shaping air and paint flow regulation fully open Trial 1 of 3	
mass coated sheet (foil) [g]	35,393		
mass on sheet (foil) [g]	0,382		
mass difference [g]	0,463		
TE [%]	82,4		

**Measurement of transfer efficiency (TE) - Test summary form for conventional atomizers
according VDMA-Einheitsblatt 24 366**

atomizer		pneumatic atomizer:	
Air cap / nozzle	LK / nozzle 1,3mm	paint feed rate [g/min]	168,0
		inlet air volume flows [NI/min]	
distance [mm]	150	inlet air pressure (dyn.) [bar]	2
type of manipulator	Standohyd Basecoat		
coating properties		airless:	
	/	air pressure (dyn.) [bar]	/
solids content of paint [mass %]	16,386	paint feed rate [ml/min]	/
viscosity	20s DIN 4		
spray booth conditions:			
temperature / humidity [°C / %]	21°C / 64%		
air velocity [m/s]	0,3 m/s		
air flow calibration	<input type="radio"/> DIN <input checked="" type="radio"/> ISO		
method			
x flat		o panel	
size background [mm]	B x H 2 000 * 1 000 mm		
size sheet (foil) [mm]	B x H 1 000 * 200 mm	size sheet (foil) [mm]	
orientation of panel	<input type="radio"/> vertical <input checked="" type="radio"/> horizontal	orientation of panel	<input type="radio"/> vertical <input checked="" type="radio"/> horizontal
movement of applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertical	movement of applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertical
stroke speed [mm/s]	200		
mass uncoated sheet (foil) [g]	34,948	Comments Shaping air and paint flow regulation fully open Trial 2 of 3	
mass coated sheet (foil) [g]	35,3256		
mass on sheet (foil) [g]	0,378		
mass difference [g]	0,462		
TE [%]	81,8		

**Measurement of transfer efficiency (TE) - test summary form for conventional atomizers
according VDMA-Einheitsblatt 24 366**

atomizer		pneumatic atomizer:	
Air cap / nozzle	LK / nozzle 1,3mm	paint feed rate [g/min]	168,0
		inlet air volume flows [NI/min]	
distance [mm]	150	inlet air pressure (dyn.) [bar]	2
type of manipulator	Standohyd Basecoat		
coating properties		airless:	
	/	air pressure (dyn.) [bar]	/
solids content of paint [mass %]	16,386	paint feed rate [ml/min]	/
viscosity	20s DIN 4		
spray booth conditions:			
temperature / humidity [°C / %]	21°C / 64%		
air velocity [m/s]	0,3 m/s		
air flow calibration	<input type="radio"/> DIN <input checked="" type="radio"/> ISO		
method			
x flat		o panel	
size background [mm]	B x H 2 000 * 1 000 mm		
size sheet (foil) [mm]	B x H 1 000 * 200 mm	size sheet (foil) [mm]	
orientation of panel	<input type="radio"/> vertical <input checked="" type="radio"/> horizontal	orientation of panel	<input type="radio"/> senkrecht <input checked="" type="radio"/> waagerecht
movement of applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertical	spatial arrangement applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertikal
stroke speed [mm/s]	200		
mass uncoated sheet (foil) [g]	44,551	Comments Shaping air and paint flow regulation fully open Trial3 of 3	
mass coated sheet (foil) [g]	44,9231		
mass on sheet (foil) [g]	0,372		
mass difference [g]	0,455		
TE [%]	81,9		

**Measurement of transfer efficiency (TE) - test summary form for conventional atomizers
according VDMA-Einheitsblatt 24 366**

atomizer		pneumatic atomizer:	
Air cap / nozzle	LK / nozzle 1,8mm	paint feed rate [g/min]	262,0
		inlet air volume flows [NI/min]	
distance [mm]	150	inlet air pressure (dyn.) [bar]	2
type of manipulator	Standex 2KPrimer		
coating properties		airless:	
	/	air pressure (dyn.) [bar]	/
solids content of paint [mass %]	64,946	paint feed rate [ml/min]	/
viscosity	20 s DIN 4		
spray booth conditions:			
temperature / humidity [°C / %]	21°C / 64%		
air velocity [m/s]	0,3 m/s		
air flow calibration	<input type="radio"/> DIN <input type="radio"/> ISO		
method			
x flat		o panel	
size background [mm]	B x H 2 000 * 1 000 mm		
size sheet (foil) [mm]	B x H 1 000 * 200 mm	size sheet (foil) [mm]	
orientation of panel	<input type="radio"/> vertical <input type="radio"/> horizontal	orientation of panel	<input type="radio"/> senkrecht <input type="radio"/> waagerecht
movement of applicator	<input type="radio"/> horizontal <input type="radio"/> vertical	spatial arrangement applicator	<input type="radio"/> horizontal <input type="radio"/> vertikal
stroke speed [mm/s]	200		
mass uncoated sheet (foil) [g]	34,504	Comments Shaping air and paint flow regulation fully open Trial 1 of 3	
mass coated sheet (foil) [g]	36,967		
mass on sheet (foil) [g]	2,463		
mass difference [g]	2,847		
TE [%]	86,5		

**Measurement of transfer efficiency (TE) - Test summary form for conventional atomizers
according VDMA-Einheitsblatt 24 366**

atomizer		pneumatic atomizer:	
Air cap / nozzle	LK / nozzle 1,8mm	paint feed rate [g/min]	262,0
		inlet air volume flows [NI/min]	
distance [mm]	150	inlet air pressure (dyn.) [bar]	2
type of manipulator	Standex 2K Primer		
coating properties		airless:	
	/	air pressure (dyn.) [bar]	/
solids content of paint [mass %]	64,946	paint feed rate [ml/min]	/
viscosity	20s DIN 4		
spray booth conditions:			
temperature / humidity [°C / %]	21°C / 64%		
air velocity [m/s]	0,3 m/s		
air flow calibration	<input type="radio"/> DIN <input checked="" type="radio"/> ISO		
method			
x flat		o panel	
size background [mm]	B x H 2 000 * 1 000 mm		
size sheet (foil) [mm]	B x H 1 000 * 200 mm	size sheet (foil) [mm]	
orientation of panel	<input type="radio"/> vertical <input checked="" type="radio"/> horizontal	orientation of panel	<input type="radio"/> vertical <input checked="" type="radio"/> horizontal
movement of applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertical	movement of applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertical
stroke speed [mm/s]	200		
mass uncoated sheet (foil) [g]	39,136	Comments Shaping air and paint flow regulation fully open Trial 2 of 3	
mass coated sheet (foil) [g]	41,5776		
mass on sheet (foil) [g]	2,442		
mass difference [g]	2,850		
TE [%]	85,7		

**Measurement of transfer efficiency (TE) - test summary form for conventional atomizers
according VDMA-Einheitsblatt 24 366**

atomizer		pneumatic atomizer:	
Air cap / nozzle	LK / nozzle 1,8mm	paint feed rate [g/min]	262,0
		inlet air volume flows [NL/min]	
distance [mm]	150	inlet air pressure (dyn.) [bar]	2
type of manipulator	Standex 2K Primer		
coating properties		airless:	
	/	air pressure (dyn.) [bar]	/
solids content of paint [mass %]	64,946	paint feed rate [ml/min]	/
viscosity	20s DIN 4		
spray booth conditions:			
temperature / humidity [°C / %]	21°C / 64%		
air velocity [m/s]	0,3 m/s		
air flow calibration	o DIN x ISO		
method			
x flat		o panel	
size background [mm]	B x H 2 000 * 1 000 mm		
size sheet (foil) [mm]	B x H 1 000 * 200 mm	size sheet (foil) [mm]	
orientation of panel	o vertical x horizontal	orientation of panel	senkrecht waagerecht
movement of applicator	o horizontal x vertical	spatial arrangement applicator	horizontal vertikal
stroke speed [mm/s]	200		
mass uncoated sheet (foil) [g]	36,965	Comments Shaping air and paint flow regulation fully open Trial3 of 3	
mass coated sheet (foil) [g]	39,3736		
mass on sheet (foil) [g]	2,409		
mass difference [g]	2,814		
TE [%]	85,6		

**Measurement of transfer efficiency (TE) - test summary form for conventional atomizers
according VDMA-Einheitsblatt 24 366**

atomizer		pneumatic atomizer:	
Air cap / nozzle	LK / nozzle 1,5mm	paint feed rate [g/min]	116,0
		inlet air volume flows [l/min]	
distance [mm]	200	inlet air pressure (dyn.) [bar]	1,75
type of manipulator	Standocryl 2K-HS grün		
coating properties			
		airless:	
	/	air pressure (dyn.) [bar]	/
solids content of paint [mass %]	60,243	paint feed rate [ml/min]	/
viscosity	25s DIN 4		
spray booth conditions:			
temperature / humidity [°C / %]	21°C / 64%		
air velocity [m/s]	0,3 m/s		
air flow calibration	<input type="radio"/> DIN <input checked="" type="radio"/> ISO		
method			
x flat		o panel	
size background [mm]	B x H 2 000 * 1 000 mm		
size sheet (foil) [mm]	B x H 1 000 * 200 mm	size sheet (foil) [mm]	
orientation of panel	<input type="radio"/> vertical <input checked="" type="radio"/> horizontal	orientation of panel	<input type="radio"/> senkrecht <input checked="" type="radio"/> waagrecht
movement of applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertical	spatial arrangement applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertikal
stroke speed [mm/s]	200		
mass uncoated sheet (foil) [g]	33,675	Comments Shaping air and paint flow regulation fully open Trial 1 of 3	
mass coated sheet (foil) [g]	34,531		
mass on sheet (foil) [g]	0,856		
mass difference [g]	1,158		
TE [%]	73,9		

**Measurement of transfer efficiency (TE) - Test summary form for conventional atomizers
according VDMA-Einheitsblatt 24 366**

atomizer		pneumatic atomizer:	
Air cap / nozzle	LK / nozzle 1,5mm	paint feed rate [g/min]	116,0
		inlet air volume flows [l/min]	
distance [mm]	200	inlet air pressure (dyn.) [bar]	1,75
type of manipulator	Standocryl 2K-HS grün		
coating properties			
		airless:	
	/	air pressure (dyn.) [bar]	/
solids content of paint [mass %]	60,243	paint feed rate [ml/min]	/
viscosity	25s DIN 4		
spray booth conditions:			
temperature / humidity [°C / %]	21°C / 64%		
air velocity [m/s]	0,3 m/s		
air flow calibration	<input type="radio"/> DIN <input checked="" type="radio"/> ISO		
method			
<input checked="" type="radio"/> flat		<input type="radio"/> panel	
size background [mm]	B x H 2 000 * 1 000 mm		
size sheet (foil) [mm]	B x H 1 000 * 200 mm	size sheet (foil) [mm]	
orientation of panel	<input type="radio"/> vertical <input checked="" type="radio"/> horizontal	orientation of panel	<input type="radio"/> vertical <input checked="" type="radio"/> horizontal
movement of applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertical	movement of applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertical
stroke speed [mm/s]	200		
mass uncoated sheet (foil) [g]	32,691	Comments Shaping air and paint flow regulation fully open Trial 2 of 3	
mass coated sheet (foil) [g]	33,548		
mass on sheet (foil) [g]	0,857		
mass difference [g]	1,153		
TE [%]	74,3		

**Measurement of transfer efficiency (TE) - test summary form for conventional atomizers
according VDMA-Einheitsblatt 24 366**

atomizer		pneumatic atomizer:	
Air cap / nozzle	LK / nozzle 1,5mm	paint feed rate [g/min]	116,0
		inlet air volume flows [l/min]	
distance [mm]	200	inlet air pressure (dyn.) [bar]	1,75
type of manipulator	Standocryl 2K-HS grün		
coating properties			
		airless:	
	/	air pressure (dyn.) [bar]	/
solids content of paint [mass %]	60,234	paint feed rate [ml/min]	/
viscosity	25s DIN 4		
spray booth conditions:			
temperature / humidity [°C / %]	21°C / 64%		
air velocity [m/s]	0,3 m/s		
air flow calibration	<input type="radio"/> DIN <input checked="" type="radio"/> ISO		
method			
<input checked="" type="radio"/> flat		<input type="radio"/> panel	
size background [mm]	B x H 2 000 * 1 000 mm		
size sheet (foil) [mm]	B x H 1 000 * 200 mm	size sheet (foil) [mm]	
orientation of panel	<input type="radio"/> vertical <input checked="" type="radio"/> horizontal	orientation of panel	<input type="radio"/> senkrecht <input checked="" type="radio"/> waagrecht
movement of applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertical	spatial arrangement applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertikal
stroke speed [mm/s]	200		
mass uncoated sheet (foil) [g]	34,005	Comments Shaping air and paint flow regulation fully open Trial 3 of 3	
mass coated sheet (foil) [g]	34,876		
mass on sheet (foil) [g]	0,871		
mass difference [g]	1,180		
TE [%]	73,8		

**Measurement of transfer efficiency (TE) - test summary form for conventional atomizers
according VDMA-Einheitsblatt 24 366**

atomizer		pneumatic atomizer:	
Air cap / nozzle	LK / nozzle 1,3mm	paint feed rate [g/min]	147,0
		inlet air volume flows [NI/min]	
distance [mm]	200	inlet air pressure (dyn.) [bar]	1,75
type of manipulator	Standohyd Basecoat		
coating properties		airless:	
	/	air pressure (dyn.) [bar]	/
solids content of paint [mass %]	16,386	paint feed rate [ml/min]	/
viscosity	20s DIN 4		
spray booth conditions:			
temperature / humidity [°C / %]	21°C / 64%		
air velocity [m/s]	0,3 m/s		
air flow calibration	<input type="radio"/> DIN <input type="radio"/> ISO		
method			
x flat		o panel	
size background [mm]	B x H 2 000 * 1 000 mm		
size sheet (foil) [mm]	B x H 1 000 * 200 mm	size sheet (foil) [mm]	
orientation of panel	<input type="radio"/> vertical <input type="radio"/> horizontal	orientation of panel	<input type="radio"/> senkrecht <input type="radio"/> waagerecht
movement of applicator	<input type="radio"/> horizontal <input type="radio"/> vertical	spatial arrangement applicator	<input type="radio"/> horizontal <input type="radio"/> vertikal
stroke speed [mm/s]	200		
mass uncoated sheet (foil) [g]	35,205	Comments Shaping air and paint flow regulation fully open Trial 1 of 3	
mass coated sheet (foil) [g]	35,521		
mass on sheet (foil) [g]	0,316		
mass difference [g]	0,404		
TE [%]	78,2		

**Measurement of transfer efficiency (TE) - Test summary form for conventional atomizers
according VDMA-Einheitsblatt 24 366**

atomizer		pneumatic atomizer:	
Air cap / nozzle	LK / nozzle 1,3mm	paint feed rate [g/min]	147,0
		inlet air volume flows [NI/min]	
distance [mm]	200	inlet air pressure (dyn.) [bar]	1,75
type of manipulator	Standohyd Basecoat		
coating properties		airless:	
	/	air pressure (dyn.) [bar]	/
solids content of paint [mass %]	16,386	paint feed rate [ml/min]	/
viscosity	20s DIN 4		
spray booth conditions:			
temperature / humidity [°C / %]	21°C / 64%		
air velocity [m/s]	0,3 m/s		
air flow calibration	<input type="radio"/> DIN <input checked="" type="radio"/> ISO		
method			
x flat		o panel	
size background [mm]	B x H 2 000 * 1 000 mm		
size sheet (foil) [mm]	B x H 1 000 * 200 mm	size sheet (foil) [mm]	
orientation of panel	<input type="radio"/> vertical <input checked="" type="radio"/> horizontal	orientation of panel	<input type="radio"/> vertical <input checked="" type="radio"/> horizontal
movement of applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertical	movement of applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertical
stroke speed [mm/s]	200		
mass uncoated sheet (foil) [g]	32,231	Comments Shaping air and paint flow regulation fully open Trial 2 of 3	
mass coated sheet (foil) [g]	32,546		
mass on sheet (foil) [g]	0,315		
mass difference [g]	0,401		
TE [%]	78,6		

**Measurement of transfer efficiency (TE) - test summary form for conventional atomizers
according VDMA-Einheitsblatt 24 366**

atomizer		pneumatic atomizer:	
Air cap / nozzle	LK / nozzle 1,3mm	paint feed rate [g/min]	147,0
		inlet air volume flows [NI/min]	
distance [mm]	200	inlet air pressure (dyn.) [bar]	1,75
type of manipulator	Standohyd Basecoat		
coating properties		airless:	
	/	air pressure (dyn.) [bar]	/
solids content of paint [mass %]	16,386	paint feed rate [ml/min]	/
viscosity	20s DIN 4		
spray booth conditions:			
temperature / humidity [°C / %]	21°C / 64%		
air velocity [m/s]	0,3 m/s		
air flow calibration	o DIN x ISO		
method			
x flat		o panel	
size background [mm]	B x H 2 000 * 1 000 mm		
size sheet (foil) [mm]	B x H 1 000 * 200 mm	size sheet (foil) [mm]	
orientation of panel	o vertical x horizontal	orientation of panel	senkrecht waagerecht
movement of applicator	o horizontal x vertical	spatial arrangement applicator	horizontal vertikal
stroke speed [mm/s]	200		
mass uncoated sheet (foil) [g]	34,440	Comments Shaping air and paint flow regulation fully open Trial3 of 3	
mass coated sheet (foil) [g]	34,752		
mass on sheet (foil) [g]	0,312		
mass difference [g]	0,400		
TE [%]	78,0		

**Measurement of transfer efficiency (TE) - test summary form for conventional atomizers
according VDMA-Einheitsblatt 24 366**

atomizer		pneumatic atomizer:	
Air cap / nozzle	LK / nozzle 1,8mm	paint feed rate [g/min]	244,0
		inlet air volume flows [NI/min]	
distance [mm]	200	inlet air pressure (dyn.) [bar]	175
type of manipulator	Standex 2KPrimer		
coating properties		airless:	
	/	air pressure (dyn.) [bar]	/
solids content of paint [mass %]	64,946	paint feed rate [ml/min]	/
viscosity	20 s DIN 4		
spray booth conditions:			
temperature / humidity [°C / %]	21°C / 64%		
air velocity [m/s]	0,3 m/s		
air flow calibration	<input type="radio"/> DIN <input checked="" type="radio"/> ISO		
method			
x flat		o panel	
size background [mm]	B x H 2 000 * 1 000 mm		
size sheet (foil) [mm]	B x H 1 000 * 200 mm	size sheet (foil) [mm]	
orientation of panel	<input type="radio"/> vertical <input checked="" type="radio"/> horizontal	orientation of panel	<input type="radio"/> senkrecht <input checked="" type="radio"/> waagerecht
movement of applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertical	spatial arrangement applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertikal
stroke speed [mm/s]	200		
mass uncoated sheet (foil) [g]	37,089	Comments Shaping air and paint flow regulation fully open Trial 1 of 3	
mass coated sheet (foil) [g]	39,322		
mass on sheet (foil) [g]	2,233		
mass difference [g]	2,669		
TE [%]	83,7		

**Measurement of transfer efficiency (TE) - Test summary form for conventional atomizers
according VDMA-Einheitsblatt 24 366**

atomizer		pneumatic atomizer:	
Air cap / nozzle	LK / nozzle 1,8mm	paint feed rate [g/min]	244,0
		inlet air volume flows [NI/min]	
distance [mm]	200	inlet air pressure (dyn.) [bar]	1,75
type of manipulator	Standex 2K Primer		
coating properties		airless:	
	/	air pressure (dyn.) [bar]	/
solids content of paint [mass %]	64,946	paint feed rate [ml/min]	/
viscosity	20s DIN 4		
spray booth conditions:			
temperature / humidity [°C / %]	21°C / 64%		
air velocity [m/s]	0,3 m/s		
air flow calibration	<input type="radio"/> DIN <input checked="" type="radio"/> ISO		
method			
x flat		o panel	
size background [mm]	B x H 2 000 * 1 000 mm		
size sheet (foil) [mm]	B x H 1 000 * 200 mm	size sheet (foil) [mm]	
orientation of panel	<input type="radio"/> vertical <input checked="" type="radio"/> horizontal	orientation of panel	<input type="radio"/> vertical <input checked="" type="radio"/> horizontal
movement of applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertical	movement of applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertical
stroke speed [mm/s]	200		
mass uncoated sheet (foil) [g]	36,214	Comments Shaping air and paint flow regulation fully open Trial 2 of 3	
mass coated sheet (foil) [g]	38,412		
mass on sheet (foil) [g]	2,199		
mass difference [g]	2,656		
TE [%]	82,8		

**Measurement of transfer efficiency (TE) - test summary form for conventional atomizers
according VDMA-Einheitsblatt 24 366**

atomizer		pneumatic atomizer:	
Air cap / nozzle	LK / nozzle 1,8mm	paint feed rate [g/min]	244,0
		inlet air volume flows [NI/min]	
distance [mm]	200	inlet air pressure (dyn.) [bar]	1,75
type of manipulator	Standex 2K Primer		
coating properties		airless:	
	/	air pressure (dyn.) [bar]	/
solids content of paint [mass %]	64,946	paint feed rate [ml/min]	/
viscosity	20s DIN 4		
spray booth conditions:			
temperature / humidity [°C / %]	21°C / 64%		
air velocity [m/s]	0,3 m/s		
air flow calibration	<input type="radio"/> DIN <input checked="" type="radio"/> ISO		
method			
x flat		o panel	
size background [mm]	B x H 2 000 * 1 000 mm		
size sheet (foil) [mm]	B x H 1 000 * 200 mm	size sheet (foil) [mm]	
orientation of panel	<input type="radio"/> vertical <input checked="" type="radio"/> horizontal	orientation of panel	<input type="radio"/> senkrecht <input checked="" type="radio"/> waagerecht
movement of applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertical	spatial arrangement applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertikal
stroke speed [mm/s]	200		
mass uncoated sheet (foil) [g]	37,493	Comments Shaping air and paint flow regulation fully open Trial3 of 3	
mass coated sheet (foil) [g]	39,672		
mass on sheet (foil) [g]	2,180		
mass difference [g]	2,612		
TE [%]	83,4		

**Measurement of transfer efficiency (TE) - test summary form for conventional atomizers
according VDMA-Einheitsblatt 24 366**

atomizer		pneumatic atomizer:	
Air cap / nozzle	LK / nozzle 1,5mm	paint feed rate [g/min]	125,0
		inlet air volume flows [NI/min]	
distance [mm]	200	inlet air pressure (dyn.) [bar]	2
type of manipulator	Standocryl 2K-HS grün		
coating properties		airless:	
	/	air pressure (dyn.) [bar]	/
solids content of paint [mass %]	60,243	paint feed rate [ml/min]	/
viscosity	25s DIN 4		
spray booth conditions:			
temperature / humidity [°C / %]	21°C / 64%		
air velocity [m/s]	0,3 m/s		
air flow calibration	<input type="radio"/> DIN <input checked="" type="radio"/> ISO		
method			
x flat		o panel	
size background [mm]	B x H 2 000 * 1 000 mm		
size sheet (foil) [mm]	B x H 1 000 * 200 mm	size sheet (foil) [mm]	
orientation of panel	<input type="radio"/> vertical <input checked="" type="radio"/> horizontal	orientation of panel	<input type="radio"/> senkrecht <input checked="" type="radio"/> waagerecht
movement of applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertical	spatial arrangement applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertikal
stroke speed [mm/s]	200		
mass uncoated sheet (foil) [g]	33,957	Comments Shaping air and paint flow regulation fully open Trial 1 of 3	
mass coated sheet (foil) [g]	34,853		
mass on sheet (foil) [g]	0,895		
mass difference [g]	1,206		
TE [%]	74,3		

**Measurement of transfer efficiency (TE) - Test summary form for conventional atomizers
according VDMA-Einheitsblatt 24 366**

atomizer		pneumatic atomizer:	
Air cap / nozzle	LK / nozzle 1,5mm	paint feed rate [g/min]	125,0
		inlet air volume flows [NI/min]	
distance [mm]	200	inlet air pressure (dyn.) [bar]	2
type of manipulator	Standocryl 2K-HS grün		
coating properties		airless:	
	/	air pressure (dyn.) [bar]	/
solids content of paint [mass %]	60,243	paint feed rate [ml/min]	/
viscosity	25s DIN 4		
spray booth conditions:			
temperature / humidity [°C / %]	21°C / 64%		
air velocity [m/s]	0,3 m/s		
air flow calibration	<input type="radio"/> DIN <input checked="" type="radio"/> ISO		
method			
x flat		o panel	
size background [mm]	B x H 2 000 * 1 000 mm		
size sheet (foil) [mm]	B x H 1 000 * 200 mm	size sheet (foil) [mm]	
orientation of panel	<input type="radio"/> vertical <input checked="" type="radio"/> horizontal	orientation of panel	<input type="radio"/> vertical <input checked="" type="radio"/> horizontal
movement of applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertical	movement of applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertical
stroke speed [mm/s]	200		
mass uncoated sheet (foil) [g]	33,618	Comments Shaping air and paint flow regulation fully open Trial 2 of 3	
mass coated sheet (foil) [g]	34,5227		
mass on sheet (foil) [g]	0,904		
mass difference [g]	1,209		
TE [%]	74,8		

**Measurement of transfer efficiency (TE) - test summary form for conventional atomizers
according VDMA-Einheitsblatt 24 366**

atomizer		pneumatic atomizer:	
Air cap / nozzle	LK / nozzle 1,5mm	paint feed rate [g/min]	125,0
		inlet air volume flows [NI/min]	
distance [mm]	200	inlet air pressure (dyn.) [bar]	2
type of manipulator	Standocryl 2K-HS grün		
coating properties		airless:	
	/	air pressure (dyn.) [bar]	/
solids content of paint [mass %]	60,234	paint feed rate [ml/min]	/
viscosity	25s DIN 4		
spray booth conditions:			
temperature / humidity [°C / %]	21°C / 64%		
air velocity [m/s]	0,3 m/s		
air flow calibration	<input type="radio"/> DIN <input checked="" type="radio"/> ISO		
method			
x flat		o panel	
size background [mm]	B x H 2 000 * 1 000 mm		
size sheet (foil) [mm]	B x H 1 000 * 200 mm	size sheet (foil) [mm]	
orientation of panel	<input type="radio"/> vertical <input checked="" type="radio"/> horizontal	orientation of panel	<input type="radio"/> senkrecht <input checked="" type="radio"/> waagerecht
movement of applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertical	spatial arrangement applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertikal
stroke speed [mm/s]	200		
mass uncoated sheet (foil) [g]	33,707	Comments Shaping air and paint flow regulation fully open Trial3 of 3	
mass coated sheet (foil) [g]	34,6141		
mass on sheet (foil) [g]	0,907		
mass difference [g]	1,200		
TE [%]	75,6		

**Measurement of transfer efficiency (TE) - test summary form for conventional atomizers
according VDMA-Einheitsblatt 24 366**

atomizer		pneumatic atomizer:	
Air cap / nozzle	LK / nozzle 1,3mm	paint feed rate [g/min]	166,0
		inlet air volume flows [NI/min]	
distance [mm]	200	inlet air pressure (dyn.) [bar]	2
type of manipulator	Standohyd Basecoat		
coating properties		airless:	
	/	air pressure (dyn.) [bar]	/
solids content of paint [mass %]	16,386	paint feed rate [ml/min]	/
viscosity	20 s DIN 4		
spray booth conditions:			
temperature / humidity [°C / %]	21°C / 64%		
air velocity [m/s]	0,3 m/s		
air flow calibration	<input type="radio"/> DIN <input checked="" type="radio"/> ISO		
method			
x flat		o panel	
size background [mm]	B x H 2 000 * 1 000 mm		
size sheet (foil) [mm]	B x H 1 000 * 200 mm	size sheet (foil) [mm]	
orientation of panel	<input type="radio"/> vertical <input checked="" type="radio"/> horizontal	orientation of panel	<input type="radio"/> senkrecht <input checked="" type="radio"/> waagerecht
movement of applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertical	spatial arrangement applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertikal
stroke speed [mm/s]	200		
mass uncoated sheet (foil) [g]	35,740	Comments Shaping air and paint flow regulation fully open Trial 1 of 3	
mass coated sheet (foil) [g]	36,091		
mass on sheet (foil) [g]	0,351		
mass difference [g]	0,458		
TE [%]	76,6		

**Measurement of transfer efficiency (TE) - Test summary form for conventional atomizers
according VDMA-Einheitsblatt 24 366**

atomizer		pneumatic atomizer:	
Air cap / nozzle	LK / nozzle 1,3mm	paint feed rate [g/min]	166,0
		inlet air volume flows [NI/min]	
distance [mm]	200	inlet air pressure (dyn.) [bar]	2
type of manipulator	Standohyd Basecoat		
coating properties		airless:	
	/	air pressure (dyn.) [bar]	/
solids content of paint [mass %]	16,386	paint feed rate [ml/min]	/
viscosity	20s DIN 4		
spray booth conditions:			
temperature / humidity [°C / %]	21°C / 64%		
air velocity [m/s]	0,3 m/s		
air flow calibration	<input type="radio"/> DIN <input checked="" type="radio"/> ISO		
method			
x flat		o panel	
size background [mm]	B x H 2 000 * 1 000 mm		
size sheet (foil) [mm]	B x H 1 000 * 200 mm	size sheet (foil) [mm]	
orientation of panel	<input type="radio"/> vertical <input checked="" type="radio"/> horizontal	orientation of panel	<input type="radio"/> vertical <input checked="" type="radio"/> horizontal
movement of applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertical	movement of applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertical
stroke speed [mm/s]	200		
mass uncoated sheet (foil) [g]	39,589	Comments Shaping air and paint flow regulation fully open Trial 2 of 3	
mass coated sheet (foil) [g]	39,9387		
mass on sheet (foil) [g]	0,350		
mass difference [g]	0,456		
TE [%]	76,7		

**Measurement of transfer efficiency (TE) - test summary form for conventional atomizers
according VDMA-Einheitsblatt 24 366**

atomizer		pneumatic atomizer:	
Air cap / nozzle	LK / nozzle 1,3mm	paint feed rate [g/min]	168,0
		inlet air volume flows [NI/min]	
distance [mm]	200	inlet air pressure (dyn.) [bar]	2
type of manipulator	Standohyd Basecoat		
coating properties		airless:	
	/	air pressure (dyn.) [bar]	/
solids content of paint [mass %]	16,386	paint feed rate [ml/min]	/
viscosity	20s DIN 4		
spray booth conditions:			
temperature / humidity [°C / %]	21°C / 64%		
air velocity [m/s]	0,3 m/s		
air flow calibration	o DIN x ISO		
method			
x flat		o panel	
size background [mm]	B x H 2 000 * 1 000 mm		
size sheet (foil) [mm]	B x H 1 000 * 200 mm	size sheet (foil) [mm]	
orientation of panel	o vertical x horizontal	orientation of panel	senkrecht waagerecht
movement of applicator	o horizontal x vertical	spatial arrangement applicator	horizontal vertikal
stroke speed [mm/s]	200		
mass uncoated sheet (foil) [g]	36,397	Comments Shaping air and paint flow regulation fully open Trial3 of 3	
mass coated sheet (foil) [g]	36,7424		
mass on sheet (foil) [g]	0,346		
mass difference [g]	0,449		
TE [%]	77,0		

**Measuring of transfer efficiency (TE) - test summary form for conventional atomizers
according VDMA-Einheitsblatt 24 366**

atomizer		pneumatic atomizer:	
Air cap / nozzle	LK / nozzle 1,8mm	paint feed rate [g/min]	240,0
		inlet air volume flows [l/min]	
distance [mm]	200	inlet air pressure (dyn.) [bar]	2
type of manipulator	Stadox 2KPrimer		
coating properties		airless:	
	/	air pressure (dyn.) [bar]	/
solid content of paint [mass %]	64,946	paint feed rate [ml/min]	/
viscosity	20 s DIN 4		
spray booth conditions:			
temperature / humidity [°C / %]	21 °C / 64%		
air velocity [m/s]	0,3 m/s		
air flow calibration	o DIN x ISO		
method			
x flat		o panel	
size background [mm]	B x H 2 000 * 1 000 mm		
size sheet (foil) [mm]	B x H 1 000 * 200 mm	size sheet (foil) [mm]	
orientation of panel	O vertical x horizontal	orientation of panel	senkrecht waagrecht
movement of applicator	O horizontal x vertical	spatial arrangement applicator	horizontal vertikal
stroke speed [mm/s]	200		
mass uncoated sheet (foil) [g]	35,224	Comments Shaping air and paint flow regulation fully open	
mass coated sheet (foil) [g]	37,477		
mass on sheet (foil) [g]	2,253		
mass difference [g]	2,769		
TE [%]	81,4	Trial 1 of 3	

**Measuring of transfer efficiency (TE) - test summary form for conventional atomizers
according VDMA-Einheitsblatt 24 366**

atomizer		pneumatic atomizer:	
Air cap / nozzle	LK / nozzle 1,8mm	paint feed rate [g/min]	254,0
		inlet air volume flows [l/min]	
distance [mm]	200	inlet air pressure (dyn.) [bar]	2
type of manipulator	Stadox 2KPrimer		
coating properties		airless:	
	/	air pressure (dyn.) [bar]	/
solid content of paint [mass %]	64,946	paint feed rate [ml/min]	/
viscosity	20 s DIN 4		
spray booth conditions:			
temperature / humidity [°C / %]	21 °C / 64%		
air velocity [m/s]	0,3 m/s		
air flow calibration	o DIN x ISO		
method			
x flat		o panel	
size background [mm]	B x H 2 000 * 1 000 mm		
size sheet (foil) [mm]	B x H 1 000 * 200 mm	size sheet (foil) [mm]	
orientation of panel	O vertical x horizontal	orientation of panel	senkrecht waagrecht
movement of applicator	O horizontal x vertical	spatial arrangement applicator	horizontal vertikal
stroke speed [mm/s]	200		
mass uncoated sheet (foil) [g]	38,310	Comments Shaping air and paint flow regulation fully open	
mass coated sheet (foil) [g]	40,5474		
mass on sheet (foil) [g]	2,237	Trial 2 of 3	
mass difference [g]	2,748		
TE [%]	81,4		

**Measuring of transfer efficiency (TE) - test summary form for conventional atomizers
according VDMA-Einheitsblatt 24 366**

atomizer		pneumatic atomizer:	
Air cap / nozzle	LK / nozzle 1,8mm	paint feed rate [g/min]	254,0
		inlet air volume flows [l/min]	
distance [mm]	200	inlet air pressure (dyn.) [bar]	2
type of manipulator	Stadox 2KPrimer		
coating properties		airless:	
	/	air pressure (dyn.) [bar]	/
solid content of paint [mass %]	64,946	paint feed rate [ml/min]	/
viscosity	20 s DIN 4		
spray booth conditions:			
temperature / humidity [°C / %]	21 °C / 64%		
air velocity [m/s]	0,3 m/s		
air flow calibration	o DIN x ISO		
method			
x flat		o panel	
size background [mm]	B x H 2 000 * 1 000 mm		
size sheet (foil) [mm]	B x H 1 000 * 200 mm	size sheet (foil) [mm]	
orientation of panel	O vertical x horizontal	orientation of panel	senkrecht waagrecht
movement of applicator	O horizontal x vertical	spatial arrangement applicator	horizontal vertikal
stroke speed [mm/s]	200		
mass uncoated sheet (foil) [g]	39,183	Comments Shaping air and paint flow regulation fully open	
mass coated sheet (foil) [g]	41,419		
mass on sheet (foil) [g]	2,236		
mass difference [g]	2,736	Trial 3 of 3	
TE [%]	81,7		

**Measurement of transfer efficiency (TE) - test summary form for conventional atomizers
according VDMA-Einheitsblatt 24 366**

atomizer		pneumatic atomizer:	
Air cap / nozzle	LK / nozzle 1,3mm	paint feed rate [g/min]	118,0
		inlet air volume flows [NI/min]	
distance [mm]	150	inlet air pressure (dyn.) [bar]	1,75
type of manipulator	Stadox CC		
coating properties		airless:	
	/	air pressure (dyn.) [bar]	/
solids content of paint [mass %]	58,387	paint feed rate [ml/min]	/
viscosity	22s DIN 4		
spray booth conditions:			
temperature / humidity [°C / %]	21°C / 64%		
air velocity [m/s]	0,3 m/s		
air flow calibration	<input type="radio"/> DIN <input checked="" type="radio"/> ISO		
method			
x flat		o panel	
size background [mm]	B x H 2 000 * 1 000 mm		
size sheet (foil) [mm]	B x H 1 000 * 200 mm	size sheet (foil) [mm]	
orientation of panel	<input type="radio"/> vertical <input checked="" type="radio"/> horizontal	orientation of panel	<input type="radio"/> senkrecht <input checked="" type="radio"/> waagerecht
movement of applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertical	spatial arrangement applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertikal
stroke speed [mm/s]	200		
mass uncoated sheet (foil) [g]	35,769	Comments Shaping air and paint flow regulation fully open Trial 1 of 3	
mass coated sheet (foil) [g]	36,615		
mass on sheet (foil) [g]	0,846		
mass difference [g]	1,131		
TE [%]	74,7		

**Measurement of transfer efficiency (TE) - Test summary form for conventional atomizers
according VDMA-Einheitsblatt 24 366**

atomizer		pneumatic atomizer:	
Air cap / nozzle	LK / nozzle 1,3mm	paint feed rate [g/min]	118,0
		inlet air volume flows [NI/min]	
distance [mm]	150	inlet air pressure (dyn.) [bar]	1,75
type of manipulator	Stadox CC		
coating properties		airless:	
	/	air pressure (dyn.) [bar]	/
solids content of paint [mass %]	58,387	paint feed rate [ml/min]	/
viscosity	22s DIN 4		
spray booth conditions:			
temperature / humidity [°C / %]	21°C / 64%		
air velocity [m/s]	0,3 m/s		
air flow calibration	<input type="radio"/> DIN <input checked="" type="radio"/> ISO		
method			
x flat		o panel	
size background [mm]	B x H 2 000 * 1 000 mm		
size sheet (foil) [mm]	B x H 1 000 * 200 mm	size sheet (foil) [mm]	
orientation of panel	<input type="radio"/> vertical <input checked="" type="radio"/> horizontal	orientation of panel	<input type="radio"/> vertical <input checked="" type="radio"/> horizontal
movement of applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertical	movement of applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertical
stroke speed [mm/s]	200		
mass uncoated sheet (foil) [g]	34,965	Comments Shaping air and paint flow regulation fully open Trial 2 of 3	
mass coated sheet (foil) [g]	35,829		
mass on sheet (foil) [g]	0,864		
mass difference [g]	1,163		
TE [%]	74,2		

**Measurement of transfer efficiency (TE) - test summary form for conventional atomizers
according VDMA-Einheitsblatt 24 366**

atomizer		pneumatic atomizer:	
Air cap / nozzle	LK / nozzle 1,3mm	paint feed rate [g/min]	118,0
		inlet air volume flows [NI/min]	
distance [mm]	150	inlet air pressure (dyn.) [bar]	1,75
type of manipulator	Stadox CC		
coating properties		airless:	
	/	air pressure (dyn.) [bar]	/
solids content of paint [mass %]	58,387	paint feed rate [ml/min]	/
viscosity	22s DIN 4		
spray booth conditions:			
temperature / humidity [°C / %]	21°C / 64%		
air velocity [m/s]	0,3 m/s		
air flow calibration	<input type="radio"/> DIN <input checked="" type="radio"/> ISO		
method			
x flat		o panel	
size background [mm]	B x H 2 000 * 1 000 mm		
size sheet (foil) [mm]	B x H 1 000 * 200 mm	size sheet (foil) [mm]	
orientation of panel	<input type="radio"/> vertical <input checked="" type="radio"/> horizontal	orientation of panel	<input type="radio"/> senkrecht <input checked="" type="radio"/> waagerecht
movement of applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertical	spatial arrangement applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertikal
stroke speed [mm/s]	200		
mass uncoated sheet (foil) [g]	42,381	Comments Shaping air and paint flow regulation fully open Trial3 of 3	
mass coated sheet (foil) [g]	43,2343		
mass on sheet (foil) [g]	0,853		
mass difference [g]	1,154		
TE [%]	73,9		

**Measurement of transfer efficiency (TE) - test summary form for conventional atomizers
according VDMA-Einheitsblatt 24 366**

atomizer		pneumatic atomizer:	
Air cap / nozzle	LK / nozzle 1,3mm	paint feed rate [g/min]	143,0
		inlet air volume flows [NI/min]	
distance [mm]	150	inlet air pressure (dyn.) [bar]	2
type of manipulator	Standex CC		
coating properties		airless:	
	/	air pressure (dyn.) [bar]	/
solids content of paint [mass %]	58,387	paint feed rate [ml/min]	/
viscosity	22s DIN 4		
spray booth conditions:			
temperature / humidity [°C / %]	21°C / 64%		
air velocity [m/s]	0,3 m/s		
air flow calibration	<input type="radio"/> DIN <input type="radio"/> ISO		
method			
x flat		o panel	
size background [mm]	B x H 2 000 * 1 000 mm		
size sheet (foil) [mm]	B x H 1 000 * 200 mm	size sheet (foil) [mm]	
orientation of panel	<input type="radio"/> vertical <input type="radio"/> horizontal	orientation of panel	<input type="radio"/> senkrecht <input type="radio"/> waagerecht
movement of applicator	<input type="radio"/> horizontal <input type="radio"/> vertical	spatial arrangement applicator	<input type="radio"/> horizontal <input type="radio"/> vertikal
stroke speed [mm/s]	200		
mass uncoated sheet (foil) [g]	36,050	Comments Shaping air and paint flow regulation fully open Trial 1 of 3	
mass coated sheet (foil) [g]	37,145		
mass on sheet (foil) [g]	1,095		
mass difference [g]	1,496		
TE [%]	73,2		

**Measurement of transfer efficiency (TE) - Test summary form for conventional atomizers
according VDMA-Einheitsblatt 24 366**

atomizer		pneumatic atomizer:	
Air cap / nozzle	LK / nozzle 1,3mm	paint feed rate [g/min]	143,0
		inlet air volume flows [NI/min]	
distance [mm]	150	inlet air pressure (dyn.) [bar]	2
type of manipulator	Standex CC		
coating properties		airless:	
	/	air pressure (dyn.) [bar]	/
solids content of paint [mass %]	58,387	paint feed rate [ml/min]	/
viscosity	22s DIN 4		
spray booth conditions:			
temperature / humidity [°C / %]	21°C / 64%		
air velocity [m/s]	0,3 m/s		
air flow calibration	<input type="radio"/> DIN <input checked="" type="radio"/> ISO		
method			
x flat		o panel	
size background [mm]	B x H 2 000 * 1 000 mm		
size sheet (foil) [mm]	B x H 1 000 * 200 mm	size sheet (foil) [mm]	
orientation of panel	<input type="radio"/> vertical <input checked="" type="radio"/> horizontal	orientation of panel	<input type="radio"/> vertical <input checked="" type="radio"/> horizontal
movement of applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertical	movement of applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertical
stroke speed [mm/s]	200		
mass uncoated sheet (foil) [g]	38,073	Comments Shaping air and paint flow regulation fully open Trial 2 of 3	
mass coated sheet (foil) [g]	39,078		
mass on sheet (foil) [g]	1,005		
mass difference [g]	1,360		
TE [%]	73,9		

**Measurement of transfer efficiency (TE) - test summary form for conventional atomizers
according VDMA-Einheitsblatt 24 366**

atomizer		pneumatic atomizer:	
Air cap / nozzle	LK / nozzle 1,3mm	paint feed rate [g/min]	143,0
		inlet air volume flows [NI/min]	
distance [mm]	150	inlet air pressure (dyn.) [bar]	2
type of manipulator	Stadox CC		
coating properties		airless:	
	/	air pressure (dyn.) [bar]	/
solids content of paint [mass %]	58,387	paint feed rate [ml/min]	/
viscosity	22s DIN 4		
spray booth conditions:			
temperature / humidity [°C / %]	21°C / 64%		
air velocity [m/s]	0,3 m/s		
air flow calibration	<input type="radio"/> DIN <input type="radio"/> ISO		
method			
x flat		o panel	
size background [mm]	B x H 2 000 * 1 000 mm		
size sheet (foil) [mm]	B x H 1 000 * 200 mm	size sheet (foil) [mm]	
orientation of panel	<input type="radio"/> vertical <input type="radio"/> horizontal	orientation of panel	<input type="radio"/> senkrecht <input type="radio"/> waagerecht
movement of applicator	<input type="radio"/> horizontal <input type="radio"/> vertical	spatial arrangement applicator	<input type="radio"/> horizontal <input type="radio"/> vertikal
stroke speed [mm/s]	200		
mass uncoated sheet (foil) [g]	33,743	Comments Shaping air and paint flow regulation fully open Trial3 of 3	
mass coated sheet (foil) [g]	34,729		
mass on sheet (foil) [g]	0,986		
mass difference [g]	1,321		
TE [%]	74,6		

**Measurement of transfer efficiency (TE) - test summary form for conventional atomizers
according VDMA-Einheitsblatt 24 366**

atomizer		pneumatic atomizer:	
Air cap / nozzle	LK / nozzle 1,3mm	paint feed rate [g/min]	112,0
		inlet air volume flows [NI/min]	
distance [mm]	200	inlet air pressure (dyn.) [bar]	1,75
type of manipulator	Standex CC		
coating properties		airless:	
	/	air pressure (dyn.) [bar]	/
solids content of paint [mass %]	58,387	paint feed rate [ml/min]	/
viscosity	22s DIN 4		
spray booth conditions:			
temperature / humidity [°C / %]	21°C / 64%		
air velocity [m/s]	0,3 m/s		
air flow calibration	<input type="radio"/> DIN <input checked="" type="radio"/> ISO		
method			
x flat		o panel	
size background [mm]	B x H 2 000 * 1 000 mm		
size sheet (foil) [mm]	B x H 1 000 * 200 mm	size sheet (foil) [mm]	
orientation of panel	<input type="radio"/> vertical <input checked="" type="radio"/> horizontal	orientation of panel	<input type="radio"/> senkrecht <input checked="" type="radio"/> waagerecht
movement of applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertical	spatial arrangement applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertikal
stroke speed [mm/s]	200		
mass uncoated sheet (foil) [g]	37,125	Comments Shaping air and paint flow regulation fully open Trial 1 of 3	
mass coated sheet (foil) [g]	37,900		
mass on sheet (foil) [g]	0,775		
mass difference [g]	1,099		
TE [%]	71		

**Measurement of transfer efficiency (TE) - Test summary form for conventional atomizers
according VDMA-Einheitsblatt 24 366**

atomizer		pneumatic atomizer:	
Air cap / nozzle	LK / nozzle 1,3mm	paint feed rate [g/min]	112,0
		inlet air volume flows [NI/min]	
distance [mm]	200	inlet air pressure (dyn.) [bar]	1,75
type of manipulator	Standex CC		
coating properties		airless:	
	/	air pressure (dyn.) [bar]	/
solids content of paint [mass %]	58,387	paint feed rate [ml/min]	/
viscosity	22s DIN 4		
spray booth conditions:			
temperature / humidity [°C / %]	21°C / 64%		
air velocity [m/s]	0,3 m/s		
air flow calibration	<input type="radio"/> DIN <input checked="" type="radio"/> ISO		
method			
<input checked="" type="radio"/> flat		<input type="radio"/> panel	
size background [mm]	B x H 2 000 * 1 000 mm		
size sheet (foil) [mm]	B x H 1 000 * 200 mm	size sheet (foil) [mm]	
orientation of panel	<input type="radio"/> vertical <input checked="" type="radio"/> horizontal	orientation of panel	<input type="radio"/> vertical <input checked="" type="radio"/> horizontal
movement of applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertical	movement of applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertical
stroke speed [mm/s]	200		
mass uncoated sheet (foil) [g]	35,911	Comments Shaping air and paint flow regulation fully open Trial 2 of 3	
mass coated sheet (foil) [g]	36,6756		
mass on sheet (foil) [g]	0,765		
mass difference [g]	1,088		
TE [%]	70		

**Measurement of transfer efficiency (TE) - test summary form for conventional atomizers
according VDMA-Einheitsblatt 24 366**

atomizer		pneumatic atomizer:	
Air cap / nozzle	LK / nozzle 1,3mm	paint feed rate [g/min]	112,0
		inlet air volume flows [NI/min]	
distance [mm]	200	inlet air pressure (dyn.) [bar]	1,75
type of manipulator	Standex CC		
coating properties		airless:	
	/	air pressure (dyn.) [bar]	/
solids content of paint [mass %]	58,387	paint feed rate [ml/min]	/
viscosity	22s DIN 4		
spray booth conditions:			
temperature / humidity [°C / %]	21°C / 64%		
air velocity [m/s]	0,3 m/s		
air flow calibration	<input type="radio"/> DIN <input checked="" type="radio"/> ISO		
method			
x flat		o panel	
size background [mm]	B x H 2 000 * 1 000 mm		
size sheet (foil) [mm]	B x H 1 000 * 200 mm	size sheet (foil) [mm]	
orientation of panel	<input type="radio"/> vertical <input checked="" type="radio"/> horizontal	orientation of panel	<input type="radio"/> senkrecht <input type="radio"/> waagerecht
movement of applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertical	spatial arrangement applicator	<input type="radio"/> horizontal <input type="radio"/> vertikal
stroke speed [mm/s]	200		
mass uncoated sheet (foil) [g]	36,899	Comments Shaping air and paint flow regulation fully open Trial3 of 3	
mass coated sheet (foil) [g]	37,6554		
mass on sheet (foil) [g]	0,756		
mass difference [g]	1,080		
TE [%]	70		

**Measurement of transfer efficiency (TE) - test summary form for conventional atomizers
according VDMA-Einheitsblatt 24 366**

atomizer		pneumatic atomizer:	
Air cap / nozzle	LK / nozzle 1,3mm	paint feed rate [g/min]	135,0
		inlet air volume flows [NI/min]	
distance [mm]	200	inlet air pressure (dyn.) [bar]	2
type of manipulator	Standex CC		
coating properties		airless:	
	/	air pressure (dyn.) [bar]	/
solids content of paint [mass %]	58,387	paint feed rate [ml/min]	/
viscosity	22s DIN 4		
spray booth conditions:			
temperature / humidity [°C / %]	21°C / 64%		
air velocity [m/s]	0,3 m/s		
air flow calibration	<input type="radio"/> DIN <input checked="" type="radio"/> ISO		
method			
x flat		o panel	
size background [mm]	B x H 2 000 * 1 000 mm		
size sheet (foil) [mm]	B x H 1 000 * 200 mm	size sheet (foil) [mm]	
orientation of panel	<input type="radio"/> vertical <input checked="" type="radio"/> horizontal	orientation of panel	<input type="radio"/> senkrecht <input checked="" type="radio"/> waagerecht
movement of applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertical	spatial arrangement applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertikal
stroke speed [mm/s]	200		
mass uncoated sheet (foil) [g]	34,975	Comments Shaping air and paint flow regulation fully open Trial 1 of 3	
mass coated sheet (foil) [g]	35,891		
mass on sheet (foil) [g]	0,916		
mass difference [g]	1,316		
TE [%]	70		

**Measurement of transfer efficiency (TE) - Test summary form for conventional atomizers
according VDMA-Einheitsblatt 24 366**

atomizer		pneumatic atomizer:	
Air cap / nozzle	LK / nozzle 1,3mm	paint feed rate [g/min]	135,0
		inlet air volume flows [NI/min]	
distance [mm]	200	inlet air pressure (dyn.) [bar]	2
type of manipulator	Standex CC		
coating properties		airless:	
	/	air pressure (dyn.) [bar]	/
solids content of paint [mass %]	58,387	paint feed rate [ml/min]	/
viscosity	22s DIN 4		
spray booth conditions:			
temperature / humidity [°C / %]	21°C / 64%		
air velocity [m/s]	0,3 m/s		
air flow calibration	<input type="radio"/> DIN <input checked="" type="radio"/> ISO		
method			
x flat		o panel	
size background [mm]	B x H 2 000 * 1 000 mm		
size sheet (foil) [mm]	B x H 1 000 * 200 mm	size sheet (foil) [mm]	
orientation of panel	<input type="radio"/> vertical <input checked="" type="radio"/> horizontal	orientation of panel	<input type="radio"/> vertical <input checked="" type="radio"/> horizontal
movement of applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertical	movement of applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertical
stroke speed [mm/s]	200		
mass uncoated sheet (foil) [g]	35,359	Comments Shaping air and paint flow regulation fully open Trial 2 of 3	
mass coated sheet (foil) [g]	36,2662		
mass on sheet (foil) [g]	0,907		
mass difference [g]	1,307		
TE [%]	69		

**Measurement of transfer efficiency (TE) - test summary form for conventional atomizers
according VDMA-Einheitsblatt 24 366**

atomizer		pneumatic atomizer:	
Air cap / nozzle	LK / nozzle 1,3mm	paint feed rate [g/min]	135,0
		inlet air volume flows [NI/min]	
distance [mm]	200	inlet air pressure (dyn.) [bar]	2
type of manipulator	Stadox CC		
coating properties		airless:	
	/	air pressure (dyn.) [bar]	/
solids content of paint [mass %]	58,387	paint feed rate [ml/min]	/
viscosity	22s DIN 4		
spray booth conditions:			
temperature / humidity [°C / %]	21°C / 64%		
air velocity [m/s]	0,3 m/s		
air flow calibration	<input type="radio"/> DIN <input checked="" type="radio"/> ISO		
method			
x flat		o panel	
size background [mm]	B x H 2 000 * 1 000 mm		
size sheet (foil) [mm]	B x H 1 000 * 200 mm	size sheet (foil) [mm]	
orientation of panel	<input type="radio"/> vertical <input checked="" type="radio"/> horizontal	orientation of panel	<input type="radio"/> senkrecht <input checked="" type="radio"/> waagerecht
movement of applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertical	spatial arrangement applicator	<input type="radio"/> horizontal <input checked="" type="radio"/> vertikal
stroke speed [mm/s]	200		
mass uncoated sheet (foil) [g]	34,466	Comments Shaping air and paint flow regulation fully open Trial3 of 3	
mass coated sheet (foil) [g]	35,3739		
mass on sheet (foil) [g]	0,908		
mass difference [g]	1,302		
TE [%]	70		