



Industrial coating
2K Soft feel lacquer
Desmophen 670//1150//1652 and Desmodur N 75

Basis		Polyurethane		
Component A		K 24402.0	A	B
	Desmophen 670	75 % in butyl acetate:xylene (1)	21.5	20.6
	Setathane D 1150	75 % in butyl acetate:xylene (7)	21.5	---
	Desmophen 1652	75 % in butyl acetate:xylene (1)	---	20.6
	Inorganic pigment		14.7	12.6
	SILLITIN Z 86 PURISS)*	(2)	3.9	3.4
	Pergopak M 3	(3)	5.9	5.0
	Matting agent	(4)	2.3	2.0
	Bentone 38	10 % swelling)**	3.9	3.4
	Dibutyl-tin-dilaurate	1 % in butyl acetate	2.0	1.7
	Butyl acetate:xylene 1:1		24.3	30.7
Component B		Desmodur N 75 BA (1)	22.5	14.0
Total parts by weight			122.5	114.0

)* or SILLITIN Z 89 PURISS for bright color formulations

)** 10 % Bentone swelling:

Bentone 38	10.0	(5)
Anti-Terra-U	5.0	(6)
Solvesso	85.0	
prepare by stirring (15 m/s, 10 min)		

Composition in % (approx.)		A	B
Binder		40.3	36.3
Solvent		37.5	43.2
Pigment		12.0	11.0
Filler		3.2	3.0
Matting agent		6.7	6.2
Additives		0.3	0.3



K 24402.0		A	B
Technical Data	NCO / OH	1.0	1.0
	Solids content	%	60
	Viscosity (DIN 53211, 4 mm flow cup, 23°C)	s	22
	Flow time doubled after	min	150
	Pot life (closed bundle)	h	8
	Gloss degree (Gardner 60°, on glass)	%	10
	Tack-free after (80 µm dry film thickness, 80°C)	min	30
	Flash point (DIN 53213)	°C	26

Mixing The formulation can be prepared with a sand-, bead- or triple roll mill.

Processing The formulations are suitable for air pressure spray application (2-4 bar, 0.8-2.0 mm nozzle). For use in production process 2K application equipment is recommended. To get a hand pleasant touch (soft feel) on hard thermoplastic surfaces, the dry film thickness should be 80 µm.

Pre-treatment of substrate In most cases the treatment of the substrate is not necessary. Possible pollution (e. g. dust, hand sweat) can be removed with ethanol or white spirit.

One coat application As a one coat application, good adhesion to the following plastics was determined:

- ® Baydur (hard PUR-foam)
- ® Bayflex (durable PUR-foam)
- Noryl GTX (PPO/PA)
- PVC

Two coat application The application of a primer using mild solvents is an advantage when painting plastics affected by solvents (e.g. ABS, PC etc.). Primers based on the following are particularly suitable:

- ® Desmolac 4125 in accordance to RR 4741 B (1-component formulation)
- Desmodur N / Desmophen 1200 in accordance to RR 4756 C (2K formulation)

The primers are extremely elastic and adhere well to many plastic substrates. This also provides a barrier effect against the solvents of the soft-feel paint, preventing possible stress corrosion cracking.

As a two coat application with priming in accordance to RR 4756 C, excellent adhesion and inter-layer adhesion was demonstrated on the following thermoplastics:

- ® Bayblend (ABS/PC)
- ® Durethan (PA)
- ® Makroblend (PC/PBTP)
- ® Makrolon (PC)
- ® Novodur (ABS)
- ® Pocan (PBTP)
- Polystyrene (PS)



K 24402.0

A

B

Film characteristics: (the results are for both formulations):

Soft-feel coatings take the cold plastic look away from hard molded plastic parts. They then feel like flexible foam parts made from polyurethane or like expanded soft PVC. These coatings also have a noise reducing effect.

Heat resistance: min. 96 h at 130°C

Solvent resistance:
(premium gasoline, xylene, butyl acetate, MPA, methanol; impregnated cotton pad)
exposure time 1 min very good

Cold Check Test:
(+50°C/-22°C/+20°C/25 cycles) no cracking

Immersion in water:
(6 months) no blistering

Condensation test:
DIN 50017, 1000 h no blistering

Abrasion test:
(Taber-Abraser/CS 10/500 rev.) < 5 mg loss of weight

Suppliers

- (1) Covestro
- (2) HOFFMANN MINERAL
- (3) Deuteron
- (4) Evonik Industries, e. g. Acematt OK 412 or Acematt TS 100
- (5) Elementis
- (6) Byk Chemie
- (7) Allnex

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