

Technical data sheet

NOVOCOAT 4590 UHS

UHS acrylic topcoat – gloss
Two-component acrylic topcoat
hardened with aliphatic isocyanate

RELATED PRODUCTS

Pigment pastes	Universal pigment pastes
HARD 45 STANDARD	Hardener for UHS acrylic products standard
HARD 45 FAST	Hardener for UHS acrylic products fast
THIN 50	Universal thinner standard, fast and slow

USE:

- Means of transport
- Machines and equipment
- Outer surfaces of tanks
 - Steel structures

PROPERTIES

- VOC-standards compliant
- High solid particle content
 - High yield
- Perfect hiding power and flowability
 - Very good chemical resistance
- Excellent resistance to atmospheric conditions
 - Very good mechanical resistance

2019/09/20

SUBSTRATES				
Acrylic, polyurethane, epoxy primers		Prepare in accordance with the information contained in the primer specifications.		
Old paint coatings		Mat and degrease.		
Polyester laminates		Mat and degrease.		
MIXING RATIO				
	NOVOCOAT 4590 UHS HARD 45 THIN 50	Volume ratio	Weight ratio	
		5	100	
		1	20	
		0 - 5%	0 - 7	
Apply the thinner in the amount calculated for the topcoat.				
VISCOSITY				
	DIN 4/20 °C	17 ÷ 21 s		
CONTENT OF VOLATILE ORGANIC COMPOUNDS				
VOC II/B/d limit *		420 g/l		
Actual VOC content		419 g/l		
* For the ready to apply mixture compliant with Directive UE 2004/42/CE				
APPLICATION CONDITIONS				
The coated surface should be dry. The temperature of the coat, coated surface and environment should be between +10°C and +35°C at a maximum relative humidity of 80%. The coated surface temperature should exceed the dew point by a minimum of 3°C.				
TEMPERATURE RESISTANCE				
The operating temperature of the applied primer is between -60°C and +80°C. Transient temperatures up to +120°C maximum are permitted.				
APPLICATION				
 CAUTION: Instructions of the equipment manufacturer must be followed.	Pneumatic spraying	Nozzle	Pressure	Distance
		1.3 ÷ 1.5 mm	2 ÷ 4 bar	15 ÷ 20 cm

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	Number of layers	1 – 2
	Single dry layer thickness.	20 - 30 µm
	Yield of the ready to apply mixture for a dry layer thickness in the provided range	10 - 12 m ² /l 0.10 ÷ 0.08 l/ m ² at 50 µm
	Mixture life at 20°C	5 hours for Hardener HARD 45 STANDARD 1.5 hours for Hardener HARD 45 FAST
	Flash off between layers	10 ÷ 15 min.

TECHNICAL DATA

Product	Solids content by weight	Solids content by volume	Density	Fineness of grind
NOVOCOAT 4590 UHS	≈ 58 ÷ 65 %	≈ 56 ÷ 62 %	≈ 1.00 ÷ 1.06 g/cm ³	< 7.5µm
HARD 45	69 %	68 %	1.04 g/cm ³	—
NOVOCOAT 4590 UHS + HARD 45: 5+1	≈ 60 ÷ 66 %	≈ 58 ÷ 63 %	≈ 1.00 ÷ 1.06 g/cm ³	< 7.5µm

Gloss

At 60° approx. 90

CURING TIMES

	Hardener HARD 45 STANDARD			Hardener HARD 45 FAST		
	10°C	20°C	60°C	10°C	20°C	60°C
Dust free	-	40 min.	15 min.	6 godz.	25 min.	-
Tack free	-	6 godz.	35 min.	24 godz.	4 godz.	-
Operating hardness	-	21 godz.	60 min.	72 godz.	12 godz.	-

CAUTION: The curing times apply to the temperatures of the individual elements.

EQUIPMENT CLEANING

THIN 50 universal thinner or NC solvent.

STORAGE CONDITIONS

Store in a dry room, away from sources of flame and heat. Avoid direct exposure to sunlight.
Recommended storage temperature: +5°C to +35°C.

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SHELF LIFE *	
NOVOCOAT 4590 UHS	24 months/20 °C
Pigment pastes	24 months/20 °C
HARD 45 STANDARD	18 months/20 °C
HARD 45 FAST	12 months/20 °C
THIN 50	24 months/20 °C
* In original sealed packaging	
SAFETY	
See Safety Data Sheet.	
OTHER INFORMATIONS	
Registration number: 000024104. The effectiveness of our systems results from laboratory research and many years of experience. The data contained herein meets the current knowledge about our products and their application potential. We ensure high quality, provided the user follows the instructions and the work is performed in accordance with good workmanship. It is necessary to do a test application of the product due to its potentially different reaction with different materials. We may not be held liable for defects if the final result was affected by factors beyond our control.	