

Technical data sheet  
**PROTECT 321**

Acrylic filler

Filling acrylic primer hardened with aliphatic isocyanate.

**RELATED PRODUCTS**

**HARD 10 STANDARD**

Hardener Standard

**HARD 10**

Hardener Fast

**THIN 50**




Universal thinner  
Standard, fast and slow






**USE:**

- Means of transport
- Machines and equipment

**PROPERTIES**

- Acrylic “wet on wet” primer with reduced volatile organic compounds (VOC) content
  - Perfect hiding power and flowability
    - High efficiency
    - Perfect filling properties
    - Good chemical resistance
    - Good mechanical resistance
  - Possibility of the application up to 150 µm wet in a single layer

SUBSTRATES						
Steel	Clean steel surfaces until reaching Sa 2½ (wet blasting) or St3 (manual cleaning or using a power tool) in accordance with the PN-ISO 12944-4 standard; the surface after the treatment must be free from oil, grease, dust, loose old paint coating, mill scale, rust and foreign contaminants; the surface should exhibit the gloss of the metal substrate.					
Old paint coatings	Degrease and dry sand with P220 – P360 paper.					
Polyester putties	Dry sand, use P240 - P320 for final sanding.					
Stainless steel	Degrease and mat with sand paper P240 – 320. Degrease again.					
Wash primers	Without preparation, after 15 minutes.					
Epoxy primers	Up to 48 hours without sanding, sand with P320 after 48 hours					
Plastics, except for PE, PTFE and mixtures thereof	Degrease with the PLUS 780 silicone degreaser and mat with an abrasive finishing pad. Degrease again and apply the PLUS 700 adhesion increasing agent and the PLUS 770 elasticity increasing agent.					
Polyester laminates	Dry sand with P280, degrease again.					
MIXING RATIO						
	PROTECT 321	Priming version		Wet on wet version		
		HARD 10	Volume ratio	Weight ratio	Volume ratio	Weight ratio
		THIN 50	5	100	5	100
		1	12	1	12	
		35 %	18	45 %	23	
Apply the thinner in the amount calculated for the primer.						
VISCOSITY						
	DIN 4/20 °C	Priming version		Wet on wet version		
		24 – 28 s		19 – 23 s		
SPRAYING PARAMETERS						
 <b>CAUTION:</b> Instructions of the equipment manufacturer must be followed.						
Priming version			Wet on wet version			
Pneumatic spraying		Airless spraying	Pneumatic spraying		Airless spraying	
nozzle: Ø1.6 - 1.8 mm, pressure: 3 - 4 bar distance: 15 - 20 cm		0.28 ÷ 0.33 mm (0011" ÷ 0013"), pressure: 100 - 120 bar, air jacket: 2 bar distance: 10-15 cm	nozzle: Ø1.2 - 1.4 mm, pressure: 3 - 4 bar distance: 15 - 20 cm		0.23 ÷ 0.28 mm (0.009" ÷ 0.011"), pressure: 100 - 120 bar, air jacket: 2 bar distance: 10-15 cm	

APPLICATION							
		Priming version		Wet on wet version			
	Number of layers	1 - 2		1 - 2			
	CAUTION: The minimum acrylic primer thickness is 120 µm on steel substrates. Maximum thickness of acrylic filler should not exceed 220 µm.						
	Single dry layer thickness.	40 - 60 µm		25 - 35 µm			
	Efficiency of the ready to apply mixture for a dry layer thickness in the provided range	approx. 10.2 m <sup>2</sup> /l 0.10 l/ m <sup>2</sup> at 60 µm		approx. 17.4 m <sup>2</sup> /l 0.06 l/ m <sup>2</sup> at 35 µm			
		PROTECT 321 + HARD 10 (5+1)					
The actual efficiency depends on the surface shape, roughness and application parameters.							
	Mixture life at 20°C	4 hours		5 hours			
	HARD 10 Standard	2 hours		2.5 hours			
	Flash off time between layers	10 - 15 min.		5 - 10 min.			
CURING TIME							
	Time to sand. For the max. thickness of 150 µm.	HARD 10 STANDARD			HARD 10 FAST		
		10°C	20°C	60 °C	10°C	20°C	60 °C
		-	4 hours	45 min	8 hours	3 hours	30 min
SANDING							
	Dry sanding	P240 - P500					
COATABILITY							
Apply the topcoat after 30 mins at 20°C at a primer thickness of 60µm  Topcoat application time for a 60 µm thick primer.	10°C	20°C		60°C			
	3 hours HARD 10 STANDARD 2 hours HARD 10 FAST	45 min. HARD 10 STANDARD 35 min. HARD 10 FAST		30 min. HARD 10 STANDARD 20 min. HARD 10 FAST			
Coatable by all NOVOL topcoats. The maximum coating time without mating is 48 h.							

TECHNICAL DATA				
Product	Solids content by weight	Solids content by volume	Density	Fineness of grind
PROTECT 321	≈ 78 %	≈ 62 %	≈ 1.69 g/cm <sup>3</sup>	< 12.5µm
HARD 10	≈ 56%	≈ 55%	≈ 1.03 g/cm <sup>3</sup>	—
PROTECT 321 + HARD 10 (5+1)	≈ 74%	≈ 61%	≈ 1.57 g/cm <sup>3</sup>	< 12.5µm
CONTENT OF VOLATILE ORGANIC COMPOUNDS				
VOC II/B/c limit *	540 g/l			
Actual VOC content, priming version	500 g/l			
Actual VOC content, wet on wet version	520 g/l			
* For the ready to apply mixture in the filling version compliant with Directive UE 2004/42/CE.				
COLOUR MATCHING				
Colour matching can be done with colour acrylic topcoats at max. 15% of volume. Count the hardener content for the total quantity of the colour-matched primer.				
APPLICATION CONDITIONS				
<p>The coated surface should be dry.</p> <p>The temperature of the coat, coated surface and environment should be between +10°C and +35°C at a maximum relative humidity of 80%.</p> <p>The coated surface temperature should exceed the dew point by a minimum of 3°C.</p>				
TEMPERATURE RESISTANCE				
<p>The operating temperature of the applied primer is between -60°C and +80°C.</p> <p>Transient temperatures up to +120°C maximum are permitted.</p>				
COLOUR				
Beige.				
EQUIPMENT CLEANING				
THIN 50 universal thinner or NC solvent.				
STORAGE CONDITIONS				
<p>Store in a dry room, away from sources of flame and heat. Avoid direct exposure to sunlight.</p> <p>Recommended storage temperature: +5°C to +35°C.</p>				
SHELF LIFE *				
PROTECT 321	24 months/20 °C			
HARD 10 STANDARD	18 months/20 °C			
HARD 10 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.