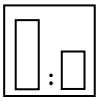
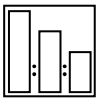
Technical data sheet
PROTECT 360
Anti-corrosion epoxy primer

PROPERTIES			
PROTECT 360 EPOXY PRIMER – an anti-corrosion primer that provides excellent protection of steel surfaces by high quality resins and active anti-corrosion additives. Intended for renovation of passenger vehicles, intensely operated trucks and buses/coaches. The product has a very good adhesion to various substrates and excellent insulation properties. It is directly coatable by topcoats. The primer can be used at the mixing ratio of 1+1 with the H 5950 hardener, or at 4+1 with the H 5960 hardener. When mixing with H 5950 at the ratio of 1+1, the wet on wet system can be used.			
RELATED PRODUCTS			
H 5950	Epoxy primer hardener		
H 5960	Epoxy primer hardener		
THIN 860	Epoxy thinner.		
SUBSTRATES			
Steel	Clean steel surfaces until reaching Sa $2^1/_2$ (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.		
Aluminium	Degrease, dry sand P280 ÷ P360 or mat with an abrasive finishing pad, degrease again.		
Galvanised steel	Degrease and mat with a fine abrasive finishing pad. Degrease again.		
Stainless steel	Degrease and mat with an abrasive finishing pad. Degrease again.		
Polyester laminates	Dry sand with P280, degrease again.		
MIXING RATIO			
		Volume ratio	Weight ratio
	PROTECT 360 H 5950	1 1	100 56
		Volume ratio	Weight ratio
	PROTECT 360 H 5960 THIN 860	4 1 10 % (25 %; 50 %)	100 14.5 5.4 (13.5; 27)
Apply the thinner in the amount calculated for the primer.			

SPRAYING PARAMETERS

Component A	Hardener	Mixing ratio	THIN 860	Viscosity DIN 4/20°C	Pneumatic spraying	Airless spraying
PROTECT 360 	H5950	1+1	None	18 — 20 s	nozzle: 1.2 — 1.5mm, pressure: 3 — 4 bar distance: 15 — 20 cm	nozzle: ∅0.25 —0.35mm, pressure: 120 —160 bar, air jacket: 4 bar, nozzle angle: 50°
	H5960	4+1	10 %	70 — 80 s	nozzle: 2.2 — 2.5mm, pressure: 3 — 4 bar distance: 15 — 20 cm	nozzle: ∅0.25 — 0.35mm, pressure: 120 — 160 bar, air jacket: 4 bar nozzle angle: 50°
	H5960	4+1	25 %	40 — 60 s	nozzle: 1.6 — 1.8mm, pressure: 3 — 4 bar distance: 15 — 20 cm	nozzle: ∅0.25 — 0.35mm, pressure: 70 — 150 bar, air jacket: 3 bar nozzle angle: 50°
	H5960	4+1	50 %	25 — 30 s	nozzle: 1.3 — 1.5mm, pressure: 3 — 4 bar distance: 15 — 20 cm	nozzle: ∅0.25 —0.35mm, pressure: 70 — 150 bar, air jacket: 3 bar, nozzle angle: 50°

APPLICATION

Hardener	Mixing ratio	Thinner THIN 860	Single dry layer thickness	Recommended number of layers
H 5950	1+1	none	25 — 35 µm	2 — 3
H 5960	4+1	10%	60 — 70 µm	2
H 5960	4+1	25%	40 — 50 µm	2
H 5960	4+1	50%	35 — 45 µm	2

CAUTION: If the epoxy primer is the only anti-corrosion primer in the paint coating, its minimum thickness must be 80 µm.

The yield of the ready to use mixture for the given range of dry layer thickness	for 1+1 system: approx. 4.2 m^2/l at 80 µm for 4+1 system: approx. 6.9 m^2/l at 80 µm

The actual yield depends on the surface shape, roughness and application parameters.

 Mixture life at 20° C	4 h
 Flash off time between layers at 20° C	5 —10 min

APPLICATION CONDITIONS

It is recommended to apply the primer at a temperature above 15°C and a humidity of no more than 80 %.

CURING TIMES

	20°C	60°C
	12 h	45 min

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

IR DRYING

	Distance Time depending on the type and power of the lamp	Follow the recommendations of the equipment manufacturer 10 –20 min

CAUTION: Start IR heating no sooner than 10 mins after applying the last layer.

SANDING

	Dry sanding	P360 — P500
	Wet sanding	P600 — P1000

COATABILITY

Can be coated with all NOVOL acrylic primers and topcoats. Coatable with topcoats after 45 min at the primer layer thickness of 80 µm. The maximum time for coating without matting is 48 h.

TECHNICAL DATA

Product	Solids content by weight	Solids content by volume	Density
PROTECT 360	≈ 76 %	≈ 58 %	≈ 1.57 g/cm^3
H5950	≈ 19%	≈ 17.5%	≈ 0.88 g/cm^3
H5960	≈ 68%	≈ 65%	≈ 0.92 g/cm^3
PROTECT 360 + H5950: 1+1	≈ 55%	≈ 38%	≈ 1.22 g/cm^3
PROTECT 360 + H5960: 4+1	≈ 75%	≈ 59%	≈ 1.44 g/cm^3

Spread: approx. 12.5µm

CONTENT OF VOLATILE ORGANIC COMPOUNDS

VOC II/B/c limit*	540 g/l
Actual VOC content	540 g/l (for 1+1)
	382 g/l (for the system of 4+1 + 10% THIN 860)
	430 g/l (for the system of 4+1 + 25% THIN 860)
	490 g/l (for the system of 4+1 + 50% THIN 860)
* For ready to use mixture acc. to EU Directive 2004/42/CE	

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COLOUR	
Grey, black.	
EQUIPMENT CLEANING	
THIN 860 epoxy thinner.	
STORAGE CONDITIONS	
Store in a cool dry room, away from sources of fire and heat. Avoid direct exposure to sunlight.	
SHELF LIFE	
PROTECT 360	24 months/20°C
H 5950	24 months/20°C
H 5960	24 months/20°C
THIN 860	24 months/20°C
SAFETY	
See Safety Data Sheet.	
NOTES	
Use PROTECT 360 with the NOVOL H 5950 or H 5960 hardener only. Use of other hardeners may reduce the anti-corrosion properties and the chemical and mechanical resistance of the filler.	
OTHER INFORMATION	
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.	

ADDITIONAL INFORMATION

WEIGHT QUANTITY OF COMPONENTS:

PROTECT 360 + H5950; 1+1

CAUTION!

In order to obtain a primer with appropriate parameters it is very important to exactly dose the individual components.

Mixture quantity	PROTECT 360	H 5950
0.10 l	79 g	44 g
0.20 l	157 g	88 g
0.25 l	196 g	110 g
0.30 l	236 g	132 g
0.40 l	314 g	176 g
0.50 l	392 g	220 g
0.75 l	589 g	331 g
1.00 l	785 g	441 g

WEIGHT QUANTITY OF COMPONENTS: PROTECT 360 + H5960; 4+1+10%

Mixture quantity	PROTECT 360	H 5960	THIN 860
0.10 l	116 g	17 g	6 g
0.20 l	233 g	34 g	13 g
0.25 l	291 g	43 g	16 g
0.30 l	349 g	51 g	19 g
0.40 l	465 g	68 g	25 g
0.50 l	582 g	85 g	32 g
0.75 l	872 g	128 g	47 g
1.00 l	1163 g	170 g	63 g

WEIGHT QUANTITY OF COMPONENTS: PROTECT 360 + H5960; 4+1+25%			
Mixture quantity	PROTECT 360	H 5960	THIN 860
0.10 l	105 g	15 g	14 g
0.20 l	209 g	31 g	28 g
0.25 l	262 g	39 g	36 g
0.30 l	314 g	46 g	43 g
0.40 l	419 g	62 g	57 g
0.50 l	523 g	77 g	71 g
0.75 l	785 g	115 g	106 g
1.00 l	1047 g	154 g	142 g

WEIGHT QUANTITY OF COMPONENTS: PROTECT 360 + H5960; 4+1+50%			
Mixture quantity	PROTECT 360	H 5960	THIN 860
0.10 l	89 g	13 g	24 g
0.20 l	179 g	26 g	49 g
0.25 l	224 g	33 g	61 g
0.30 l	269 g	40 g	73 g
0.40 l	359 g	53 g	97 g
0.50 l	449 g	66 g	122 g
0.75 l	673 g	99 g	182 g
1.00 l	897 g	132 g	243 g