

ZINGACERAM PU

Zingaceram PU is a two pack acrylated polyurethane paint. Zingaceram PU gives a finish in most RAL colours with excellent adhesion.

Due to its ceramic particles (inorganic, non-metallic materials), it provides an exceptional barrier against the environment which results in high chemical and abrasion resistance.

Zingaceram PU is recommended as a finish coloured topcoat in a ZINGA system.

PHYSICAL DATA AND TECHNICAL INFORMATION

WET PRODUCT

Components	- Ceramic powder - Active anticorrosion pigments (lead-free)
Binder	- Hydroxylated acrylic resins combined with aliphatic polyisocyanate
Density	- Base (Part A): 1,38 kg/dm ³ (±0,10 Kg/dm ³) depending on colour - Hardener (Part B): 1,06 kg/dm ³ (±0,05 Kg/dm ³) - Base + Hardener: 1,30 kg/dm ³ (±0,15 Kg/dm ³) depending on colour
Solid content	- 65,0% by weight (±2%) - 55,0% by volume (±2%)
Type of thinner	PU Thinner
Flash Point	26°C
Pot life	± 4 hours at 20°C
VOC	415 to 490 g/L depending on colour

DRY FILM

Colour	Most RAL colours
Gloss	35 (± 5)% Gardner 60°. Medium Gloss Grade, Level 4: Satin Gloss (MPI)

PACKING

4 L	Available. Part A (base): 3,5 L + Part B (hardener): 0,5 L
20 L	Available. Part A (base): 17,5 L + Part B (hardener): 2,5 L

CONSERVATION

Shelf life	Part A: Min. 36 months at 20°C Part B: Min. 24 months at 20°C *Shelf Life: when kept at recommended storage conditions and in original unopened containers.
Storage	Store indoors in a dry (0-90% Relative humidity) environment at temperatures between 5°C and +35°C. This product is solvent based and not affected by excursions below these published storage temperatures, down to -10°C, for a duration of no more than 14 days. Always inspect the product prior to use to make sure it is smooth and homogeneous when properly mixed.

CONDITIONS

SURFACE PREPARATION

Minimum and maximum overcoating time of the sealer/primer must be respected when applying Zingaceram PU. No contamination such as oil, grease, dust or any other must be present on the surface. Salt deposits or other water-soluble contaminations should be removed with water and brush, water under high pressure or steam. Possible white rust on ZINGA should be removed with soft, brass-bristled brush.

ENVIRONMENTAL CONDITIONS DURING APPLICATION

Ambient temperature	- Minimum 5°C - Maximum 35°C
Relative humidity	- Minimum 30% - Maximum 85%
Surface temperature	- Minimum 3°C above the dew point. - No visual presence of water or ice - Minimum 5°C and maximum 60°C

APPLICATION INSTRUCTIONS

GENERAL

Application methods	Zingaceram PU can be applied by brush, roller, conventional spray-gun or airless spraying.
Stripe coat	In a duplex system, it is always recommended to treat corners, sharp edges, bolts and nuts with a brush before applying a uniform coat.
Cleaning	Cleaning of equipment with PU Thinner.
Mixing	Mix base paint and hardener (mixing ratio: 7/1 in volume). Mixing errors result in deviating properties and differences in gloss. Therefore we advise to mix the complete contents of base paint and hardener.

APPLICATION BY BRUSH AND ROLLER

Dilution	up to 5% with PU Thinner (v%)
Type of brush or roller	Industrial brush with natural hairs Short hair roller (mohair)

APPLICATION BY CONVENTIONAL SPRAY-GUN

Dilution	up to 20% with PU Thinner (v%)
Pressure at the nozzle	3 to 5 bar
Nozzle opening	1,2 to 1,8 mm

APPLICATION BY AIRLESS SPRAY

Dilution	up to 10% with PU Thinner (v%)
Pressure at the nozzle	100 to 300 bar
Nozzle opening	0,017 to 0,024 inch

APPLICATION ON ZINGA

Mist (tie) coat	- Application at least 4 hours after ZINGA is touch dry (20°C). - 20-40 µm DFT - Continuous layer
Full coat	- 2 hours after touch dry of the mist coat

OTHER INFORMATION

COVERAGE AND CONSUMPTION

Theoretical coverage	- For 60 µm DFT: 8,48-9,71 m²/L* - For 80 µm DFT: 6,37-7,25 m²/L*
Theoretical consumption	- For 60 µm DFT: 0,103-0,118 L/m²* - For 80 µm DFT: 0,138-0,157 L/m²*

*depending on choice of colour

DRYING PROCESS AND OVERCOATING

Drying time	For 60 µm DFT at relative humidity of 75%			
		10°C	20°C	30°C
	Dust dry	2 hours	1 hours	0.5 hours
	Touch dry	5 hours	3 hours	2 hours
	Dry to handle	10 hours	8 hours	6 hours
Overcoating	For 60 µm DFT at relative humidity of 75%:			
		10°C	20°C	30°C
	Minimum time	16 hours	12 hours	10 hours
	Maximum time	4 days	3 days	3 days
	Remark: At longer intervals a good cleaning and light sanding is necessary to avoid intermediate coat contamination and to ensure the adherence of the next coat.			

RECOMMENDED SYSTEM

ZINGA Duplex system	Zingaceram PU can be applied directly onto ZINGA (apply with mist/full coat technique). • ZINGA 1 x 60 µm DFT + Zingaceram PU 1 x 60-120 µm DFT
ZINGA Triplex system	For optimal gloss and extra barrier protection, a triplex system (with sealer) is recommended. • ZINGA 1 x 60 µm DFT + Zingaceram HS 1 x 120 µm DFT + Zingaceram PU 1 x 60-80 µm DFT (recommended) • ZINGA 1 x 60 µm DFT + Zingalufer 1 x 80 µm DFT + Zingaceram PU 1 x 60-80 µm DFT The first system with epoxy sealer (Zingaceram HS), has been tested according ISO 12944 C5 High. The second system with PU sealer (Zingalufer) will show equal performance as the system ZINGA + Zingalufer has been tested according to ISO 12944 C5 High.

For more specific and detailed recommendations concerning the application of Zingaceram PU, please contact the Zingametall representative. For detailed information about the health and safety hazards and precautions for use, refer to the Zingaceram PU safety data sheet.