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	- Hardener: 1,06 kg/dm³ (±0,25 Kg/dm³) depending on colour - Base: 1,38 kg/dm³ (±0,03 Kg/dm³) - Hardener + base: 1,30 kg/dm³ (±0,25 Kg/dm³) depending on colour
Solid content	- 55,0% by volume (±2%) - 65,0% by weight (±2%)
Viscosity	Pseudoplastic, thixotropically structured
Type of thinner	PU Thinner
Flash Point	26°C
Pot life	± 4 hours at 20°C
VOC	415 to 490 g/L (= 319 to 377 g/Kg) 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	1 year in the original, unopened package.
Storage	Store in a dry environment at temperatures between –5°C and +35°C.

CONDITIONS

SURFACE PREPARATION

When the waiting time between the successive coats is abnormally prolonged or in extremely polluted areas, the Zinganised surface can become contaminated. All contaminations that hamper the adhesion of the paint should be removed by appropriate means. 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 water and rigid nylon 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 of ice - Minimum 8°C and maximum 60°C

APPLICATION INSTRUCTIONS

GENERAL

Application methods	Zingaceram PU can be applied on top of ZINGA by brush (only on sealer) and roller, conventional spray-gun or airless spraying.
Stripe coat	It is always recommended to treat corners, sharp edges, bolts and nuts 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	0 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	10 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	0 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 6 hours after ZINGA is touch dry. - 25-30 µm DFT - Diluted according TDS - **Continuous** layer
Full coat	- 2 hours after touch dry of mist coat - DFT = specified DFT - 25-30 µm DFT - Diluted according TDS

OTHER INFORMATION

COVERAGE AND CONSUMPTION

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

DRYING PROCESS AND OVERCOATING

Drying time	For 60 µm DFT at relative humidity of 75%: - 10°C: Dustdry: 2 hours Dry to handle: 6 hours Hard: 24 hours Fully cured: 6 days - 20°C: Dustdry: 1 hour Dry to handle: 4 hours Hard: 20 hours Fully cured: 4 days - 30°C: Dustdry: 30 minutes Dry to handle: 2 hours Hard: 14 hours Fully cured: 2 days
Overcoating	For 60 µm DFT at relative humidity of 75%: - 10°C: Minimum: 16 hour Maximum: 4 days - 20°C: Minimum: 12 hours Maximum: 3 days - 30°C: Minimum: 10 hours Maximum: 3 days Remark: At longer intervals a good cleaning is necessary to avoid intermediate coat contamination which could disturb 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 60-80 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 60-80 µm DFT + Zingaceram HS 1 x 120 µm DFT + Zingaceram PU 1 x 60-80 µm DFT **(recommended)** • ZINGA 1 x 60-80 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** obtaining a **High** classification in a **C5** environment (life expectancy > 15 years). The second system with PU sealer (Zingalufer) will show equal performance as the system ZINGA + Zingalufer has been tested according ISO 12944 obtaining High classification in a C5 environment.

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.

The information on this sheet is merely indicative and is given to the best of our knowledge based on practical experience and testing. The conditions or methods of handling, storage, use or disposal of the product cannot be controlled by us and are therefore outside our responsibility. For these and other reasons we retain no liability in case of loss, damage or costs that are caused by or that are linked in any way to the handling, storage, use or disposal of the product. Any claim concerning deficiencies must be made within 15 days upon reception of the goods quoting the relevant batch number. We retain the right to change the formula if properties of the raw material are changed. This data sheet replaces all former specimens.