ZINGACERAM HS

ZINGACERAM HS is a high-solids, two-component coating, cross-linked with a Phenalkamine hardener, containing micaceous iron oxide (MIO) flakes and ceramic fillers. It provides excellent corrosion protection, very good abrasion resistance and high chemical resistance. Thanks to its high-solids formulation, ZINGACERAM HS shows excellent compatibility when applied on ZINGA and can be used as a primer, sealer or intermediate coat, or as a topcoat on structures not exposed to direct UV radiation.
ZINGACERAM HS incorporates components derived from natural resources, with part A containing up to 60% naturally sourced components and part B containing up to 70% bio-based content, contributing to the coating's performance and a reduced environmental footprint.

PHYSICAL DATA AND TECHNICAL INFORMATION

WET PRODUCT

Type	High-solids, two-component epoxy coating with ceramic fillers and MIO
Density	Base (Part A): 1,79 kg/dm³ Hardener (Part B): 1,00 kg/dm³ Base + Hardener: 1,63 kg/dm³
Solid content	86% by weight (±2%) 78% by volume (±2%)
Type of thinner	HS THINNER
Flash point	32°C
VOC	246 g/L (= 151 g/kg)

DRY FILM

Colour	- Grey - Red oxide (on request)
Gloss	Matt
Typical layer thickness	40 – 150 µm DFT (microns) *See clause Recommended Systems*
Temperature resistance	From -25°C to +100°C, with peaks up to +120°C
pH resistance	Atmospheric: 2 – 13 pH Immersion: 3 – 12 pH *Minor discoloration may occur at pH values approaching the limits of the specified range.*

CONSERVATION

Shelf life	In the original, unopened packaging: Part A: Min. 24 months Part B: Min. 24 months
Storage	Store in a dry, well-ventilated storage area between +5°C and +30°C. Keep away from direct sunlight.
Pot life	2,5 – 3 hours at 20°C

APPLICATION METHODS

Brush – Roller – Spray (air assisted and airless)

APPLICATION CONDITIONS

Ambient temperature	+5°C – +40°C
Relative humidity	Maximum 85% RH. Do NOT apply on a damp or wet surface
Surface temperature	+5°C – +60°C Minimum 3°C above dewpoint No visual presence of water or ice
Pot life and curing behaviour vary with temperature and humidity conditions.	

COVERAGE AND CONSUMPTION

Theoretical	Coverage	Consumption
80 µm DFT	9,2 m²/L	0,11 L/m²
120 µm DFT	6,1 m²/L	0,16 L/m²
Practical : Depends on the roughness profile of the substrate and the application method.		

PACKAGING

5 L	4 L part A and 1 L part B
20 L	16 L part A and 4 L part B

SURFACE PREPARATION

GENERAL

ZINGACERAM HS is to be applied on a clean dry surface. The prepared surface shall be free from oil, grease, dirt, dust, and from poorly adhering mill scale, rust, paint, oxides, corrosion products and other foreign matter.

SURFACE PREPARATION

When the waiting time between successive coats is unusually prolonged, or in environments with extreme pollution, the coated surface may become contaminated. Ensure the surface is clean and free of contaminants before applying the next coat to achieve optimal adhesion and performance.
Water-Soluble Contaminants: Salt deposits or other water-soluble impurities should be cleaned using water and a brush, high-pressure water, or steam.
White Rust on ZINGA: Any white rust should be removed using water and a stiff nylon brush.

APPLICATION INSTRUCTIONS

GENERAL

Stirring	ZINGACERAM HS must be **thoroughly stirred** before use in order to achieve a homogeneous liquid. Always inspect the product prior to use to make sure it is smooth and homogeneous when properly mixed.
Thinning	Only use HS THINNER.
Cleaning	The equipment shall be cleaned with HS THINNER or an epoxy thinner.

BRUSH AND ROLLER

Dilution	0 – 5%
Type of brush or roller	- Industrial natural bristle brush - Short hair roller (mohair)
Notes: Do not apply a mist (tie) coat by brush.	

AIR-ASSISTED SPRAYING

Dilution	10 – 15%
Air pressure	2,0 – 3,0 bar (conventional) 1,0 – 2,0 bar (HVLP)
Nozzle orifice size	1,8 – 2,5 mm
Notes: A higher air pressure within the given range will result in a smoother finish.	

AIRLESS SPRAYING

Dilution	0 – 5%
Pump ratio	Minimum 30/1
Fluid pressure	150 – 250 bar
Nozzle orifice size	0,019 – 0,025 inch

DRYING TIME *(60 µm DFT in a well-ventilated environment)*

Air Temp.	10°C	20°C	30°C
Dust dry	2 hours	1 hour	30 minutes
Touch dry	4 hours	2 hours	1 hour
Dry to handle	8 hours	4 hours	2 hours
Full cure	10 days	7 days	5 days

OVERCOATING *(60/120 µm DFT in a well-ventilated environment)*

Air Temp.	10°C	20°C	30°C
Minimum	16/24 h	8/12 hours	4/6 hours
Maximum	6 days	5 days	4 days

Notes:
Depending on environmental conditions, the overcoating interval may be shortened or extended. If the maximum overcoating interval is exceeded, mechanical surface treatment and subsequent cleaning are required to ensure adequate adhesion of subsequent coats.

APPLICATION ON ZINGA *(At 20°C and well-ventilated)*

Mist (Tie) Coat:
Application at least 4 hours after ZINGA is touch dry.
25 – 40 µm DFT (continuous layer).
Maximum 15% dilution.
Small nozzle orifice size recommended for spray:
1,6 – 1,8 mm (air) or 0,017 – 0,019 inch (airless)

Full Coat:
2 hours after touch dry of the mist coat.

RECOMMENDED COATING SYSTEMS

ZINGA DUPLEX

- The ZINGA-ZINGACERAM HS Duplex system has been tested according to ISO 12944-6:
  - **ZINGA 60 µm + ZINGACERAM HS 1 x 120 µm DFT – C5 High**

ZINGA TRIPLEX

- The ZINGA-ZINGACERAM HS-ZINGACERAM PU Triplex system has been tested according to ISO 12944-6:
  - **ZINGA 60 µm + ZINGACERAM HS 40 µm + ZINGACERAM PU 60 µm DFT – C5 High**
  - **ZINGA 60 µm + ZINGACERAM HS 80 µm + ZINGACERAM PU 60 µm DFT – C5 Very High**

- The ZINGA-ZINGACERAM HS-ZINGACERAM PU Triplex system has been tested according to ISO 12944-9:
  - **ZINGA 60 µm + ZINGACERAM HS 150 µm + ZINGACERAM PU 60 µm DFT – CX**

HEALTH & SAFETY

Always wear appropriate personal protective equipment (PPE) such as gloves, goggles, and respiratory protection. Ensure proper ventilation during application and drying.
For detailed information about the health and safety hazards and precautions for use, refer to the ZINGACERAM HS safety data sheet.

For more specific and detailed recommendations concerning the application of ZINGACERAM HS, please contact the Zingametall representative / distributor.

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.