Technical Data Sheet (TDS)

LOGIC DS

High-Performance Nano Epoxy Sealing System for Chemical Protection and Surface Durability

Product Identification

Property	Description
Product Name	Logic DS
Product Type	Epoxy-based chemical-resistant sealing system
Application Method	Surface coating / sealing layer
Intended Use	Protection of concrete and mineral substrates against chemical attack, liquids, and industrial exposure

Product Description

Logic DS is a high-performance epoxy-based sealing system designed to provide a dense, durable, and chemically resistant surface layer on mineral substrates such as concrete and cement-based screeds.

The product forms a continuous protective barrier that significantly reduces permeability and protects against aggressive chemical exposure.

For optimal performance, Logic DS is used as part of a system together with Logic DP (penetration layer), which enhances adhesion, substrate strength, and overall system durability.

Areas of Application

- Industrial flooring
- Chemical processing plants
- Warehouses and logistics centers
- Concrete tanks and reservoirs
- Wastewater treatment facilities
- Laboratories
- Parking structures
- Interior and exterior mineral surfaces

System Structure

Recommended System Build-Up

1- Substrate preparation

2- Penetration layer: **Logic DP**

3- Sealing layer: **Logic DS** (approx. 150 µm dry film thickness)

This system provides:

- Deep impregnation
- Surface sealing
- High chemical resistance

Application Guidelines

Surface Preparation

The substrate must be:

- Clean
- Dry
- Structurally sound
- Free of dust, oils, grease, salts, and contaminants

Surface pores must be open to ensure proper adhesion and performance.

Application

Logic DS is applied as a surface coating using:

- Roller
- Brush
- Spray

Application thickness depends on system requirements and exposure conditions.

Application Conditions

- Minimum substrate temperature: ≥ 0 °C
- Surface must be dry
- Avoid application under high humidity
- Ensure proper ventilation

Product Properties

Property	Value
Appearance	Epoxy paint
Color	Based on RAL-code
Odor	A) After butanone B) After glycol ethers
Density (20 °C)	0.9 g/ml
Viscosity	ca. 1 mPas DIN 51 562
Solvent Content	>30%
Mixing Ratio	A 1 : B 4
Dry Film Thickness	approx. 150–250 µm
Chemical Resistance	Very high

Consumption

Consumption depends on:

- Surface roughness
- Porosity
- Required film thickness

Typical Consumption

- 100 g/m^2 (at 30 my) g/m^2 per layer

On-site testing is recommended.

Curing and Hardening

Curing depends on:

- Ambient temperature
- Ventilation
- Layer thickness

Guidelines

- Initial curing: approx. 24 hours
- Full curing: Hardened after 48 hours at 18 °C, fully chemically and mechanically resilient after 8 days.
- Minimum temperature: ≥ 0 °C

Proper ventilation is required to ensure full curing and solvent evaporation.

Performance Characteristics

- High resistance to chemical attack
- Excellent adhesion to mineral substrates
- Dense and impermeable surface
- Resistance to:
  - Acids
  - Alkalis
  - Oils and fuels
  - Organic solvents
  - Industrial chemicals
- Improves durability and service life of substrates
- Reduces water and liquid penetration

Chemical Resistance

Logic DS provides resistance to a wide range of chemicals under defined conditions.

Resistance Classification

- + = Resistant
- 0 = Conditionally resistant
- – = Not resistant

Test results are based on exposure conditions including temperature and concentration.

Performance Notes

- Chemical resistance on concrete is enhanced when applied over Logic DP.
- Resistance is maintained up to approx. 50 °C depending on medium.
- Performance varies based on system build-up and curing.

Limitations

- Not suitable for wet or damp substrates
- Requires proper curing conditions
- Performance depends on system configuration
- Not suitable for flexible substrates
- Surface preparation is critical

Safety and Handling

Logic DS contains reactive and/or solvent-based components.

Use appropriate PPE:

- Protective gloves
- Safety goggles
- Respiratory protection (for indoor use)

Keep away from ignition sources.

Do not smoke during application.

Refer to Safety Data Sheet (SDS).

Storage and Shelf Life

- Store in original sealed containers
- Protect from frost and heat
- Storage temperature: < 20 °C
- Shelf life: in. 1 year (unmixed components)

Transportation

- Check local regulations.
- Product components may be subject to transport classification.

Environmental Information

- Avoid release into environment
- Dispose according to local regulations
- Ensure adequate ventilation during application

Legal Notice

The technical information provided is based on laboratory tests and practical experience.

Actual performance depends on substrate conditions, application methods, and environmental factors.

The user is responsible for verifying suitability for the intended application.

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