Technical Data Sheet (TDS)

ARMOPUR® DTM 163 FD

DESCRIPTION:

A two-component, quick-drying acrylic-polyurethane coating. Contains zinc phosphate. It can be used as a topcoat or as a standalone coating directly on metal. It forms a semi-matte, durable finish with excellent color retention. It can be applied at temperatures down to -10°C. It is easily applied by airless spray.

STANDARD USE:

Anti-corrosion protection and repair of metal and concrete structures in civil engineering, the petrochemical industry, transport construction, and heavy engineering, operating in various corrosive environments:
C2-C5, CX (GOST 34667.5—2021)
XA1-XA3 (SN 2.01.07-2020)

TECHNICAL SPECIFICATIONS:

Color	According to the RAL catalogue
Gloss level (60° ISO 2813)	20-36 (semi-matte)
Volume of Solids	62±2%
Density	1.29 g/cm 3
Theoretical consumption (excluding losses)	125 g/m2 - 60 microns
Drying to Touch | Easy Handling at a temperature of (20±0.5) °C	1 hour, no more
Pot-life at a temperature of (20±0.5) °C	2 hours, no less
Overcoating interval 20°C	2 hours, no less
Recommended dry film thickness	60-120 microns
Viscosity	thixotropic
Adhesion Cross-hatch cut method (GOST 15140) Pull-off method (GOST 32299)	1 point, no more 4 MPa, not less

APPLICATION METHOD

Airless spraying (ALS)
Recommended thinner: Thinner 3, up to 10% by weight
Nozzle diameter 0.011" - 0.017" (0.28 - 0.43 mm)
The pressure at the nozzle is not less than 150 bar
Note: BVR application data may vary depending on equipment configuration.

Air spraying
Recommended thinner: Thinner 3
The amount of thinner is up to 20% by weight.
Nozzle diameter 1.6 - 2.5 mm
Nozzle pressure (minimum) HVLP 2.5 bar

Brush/roller
Recommended thinner: Thinner 3 up to 10% by weight. Using a roller to apply the first coat is not recommended.

MIXING PROPORTIONS

Mixing proportions		% by weight, g	% by volume, ml
Component A	DTM 163 FD	100	100
Hardener	Hardener 61	12.5	20

Thinner 3
Mix the base thoroughly with a mixer. Add the hardener while stirring constantly and continue mixing for 2–3 minutes until completely homogeneous.

SURFACE PREPARATION

Carbon steel

Surface preparation shall be carried out in accordance with GOST 9.402:
-first degree of degreasing
- abrasive blasting to grade 2
Sa 2½ (ISO 8501-1). Surface profile 30-40 µm.
The weld seams, edges, and overall surface must be prepared to grade P2 (ISO 8501-3). For hard-to-reach areas, preparation up to grade St2 (ISO 8501-1) is permitted.
Mechanical or manual cleaning is permitted during touch-up painting. Surface preparation must be at least St2 (ISO 8501-1). The existing coating must have adequate adhesion to the substrate. Oil and grease contaminants are not permitted. Surface preparation directly impacts the durability and performance characteristics of the resulting coating.

Primed surface or old coating without traces of corrosion

Thoroughly remove oil and grease stains using an appropriate detergent. Remove salts and other contaminants.
Check the compatibility of the old coating with ARMOPUR® DTM 113 FD. Roughen the surface if necessary. Remove dust.

APPLICATION CONDITIONS

The coating should be applied only to a dry and clean surface. The surface temperature should be 3°C above the dew point. The minimum application temperature is -10°C (make sure there is no ice on the surface). The maximum humidity is 85%.
The material temperature must be at least 15°C. Lower temperatures will increase viscosity, which may require additional thinner, resulting in slower drying and increased risk of drips.
In enclosed spaces, adequate ventilation must be provided during application and drying of the coating.

SHELF LIFE

24 months in unopened original packaging.

SAFETY MEASURES

Contains organic solvents. Perform painting work with local and general ventilation. Use rubber gloves to protect your hands and personal protective equipment for respiratory protection. Store the material in a tightly closed container. Keep away from ignition sources, heat, sparks, open flames, and static electricity. Do not smoke nearby. Use explosion-proof equipment, lighting, and spark-proof tools. Extinguish with water spray or air-mechanical foam and powders. In case of skin contact, wash the contaminated area with soap and water, dry, and apply a rich cream.

The information provided above is not exhaustive or complete. This information is based on laboratory tests and practical experience and is provided to the best of our knowledge. As a manufacturer, we cannot control the conditions under which the product is used or the many factors that affect its use and application. We disclaim liability for any damage caused by using the product contrary to our instructions or for improper purposes. We reserve the right to unilaterally change this information without prior notice. This product is intended for professional use only and should only be used by professionals with sufficient knowledge and experience. The information provided above is for guidance only. To the extent permitted by applicable law, we assume no liability for the conditions under which the product is used or for its use or application.