

**RESICOAT®**



DUAL LAYER PIPELINE COATINGS

  
**AKZO NOBEL**

# RESICOAT® – DL

dual layer coatings for pipelines

## RESICOAT® DL DUAL LAYER PIPE COATINGS

Dual Layer FBE Coatings were introduced in the early 1990's as an alternative to liquid over-coating systems for directional drilling applications.

RESICOAT® DL is designed to achieve outstanding pipeline properties, even in the most severe operating environments.

Two stand-alone FBE coatings are applied successively by electrostatic spray in one spray booth and the overspray of both layers can be recycled and sprayed between both layers. Through this combination the resulting film performance characteristics are better than the sum of the individual coatings. The first layer Resicoat® R-726 has the excellent adhesion and corrosion-resistance properties of a stand-alone FBE coating. The second layer typically is deposited during the melt stage of the first layer and the result is an intimate chemical bond between the two layers. The key to the superior properties of the Dual Layer Coating System is the specially formulated second layer.

This provides a range of options for superior performance that is designed to suit an important range of applications.

## APPLICATION RANGE OF RESICOAT® DL DUAL LAYER SYSTEMS

### GOUGE RESISTING SYSTEM: Resicoat® R-726 + R-641

Pipes are exposed to various mechanical attacks during transportation and handling. Resicoat® R-726 + R-641 ensures optimal protection while laying, handling, backfill and during horizontal drilling. The special formulation of the second layer Resicoat® R-641 increases the gouge resistance in hardness and abrasion resistance. The Resicoat gouge resisting system meets CAN/CSA Z245.20-06 System 2B.

### FLEXIBLE SYSTEM: Resicoat® R-726 + R-105

This system ensures highest flexibility at highest film thickness. It not only meets CAN/CSA Z245.20-06 System 2A but also exceeds the requirements of the standard in terms of its flexibility.

### ANTI-SLIP SYSTEM: Resicoat® R-726 + R-741

During pipe laying from a laybarge it is important to prevent the pipe slipping out of the concrete weight coating. This can be achieved by applying a rough FBE coat as a second layer which increases the bond strength to concrete by a factor of 4. Pipe handling is improved through increased friction. In addition the anti-slip properties of the pipe surface makes it safer for walking on wet pipe. Resicoat® Anti-Slip System meets CAN/CSA Z245.20-06 System 2C.

### UV-RESISTANCE: Resicoat® R-726 + R-600

A polyester powder coating on top of a Dual Layer System will ensure good resistance to sunlight exposure. The polyester layer absorbs the UV radiation that causes degradation and erosion of the FBE coating. This provides long life-time protection particularly for above ground pipelines.



# RESICOAT® – DL

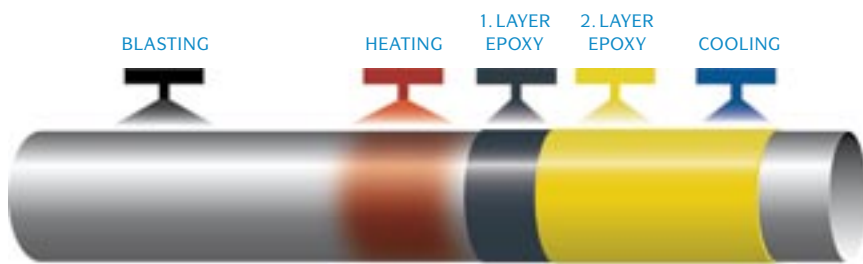
application process

## ADVANTAGES OF DUAL LAYER COATING SYSTEMS

- ▶ Excellent mechanical properties
- ▶ High anti-corrosion properties
- ▶ Easy application in existing coating plants
- ▶ Avoids cathodic protection shielding problem
- ▶ Total homogeneity: the same coating can be used for the entire pipeline including girth welds and any fittings

## APPLICATION PROCESS FOR GOUGE- AND FLEXIBLE SYSTEMS

Abrasive cleaning with steel grit/shot is required to achieve a surface purity grade of  $> Sa 2.5$  with an anchor pattern of  $50 - 100 \mu m$  (2 – 4 mils). The steel must reach a temperature of  $230 - 240^\circ C$ . The FBE is deposited by an electrostatic spray process. A second set of guns applies the second layer in line immediately after the first layer. The coating cures quickly and is capable of supporting the weight of the pipe within seconds of application. Once cured, the pipe is cooled for safe handling and inspection. The coated pipe is then ready for installation and use.



# GLOBAL

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