Eurotaff Polyurea AR

Fast setting, polyurea elastomeric waterproof coating and seamless

Description

Polyuria Eurotaff AR is a fast setting, rapid curing, 100% solids, flexible, **aromatic**, two component spray **pure polyurea** that can be applied to suitably prepared surfaces such as concrete, metal, timber and etc. It is extremely fast gel time to which makes it unrivalled. Eurotaff polyurea AR is innovatively designed for heaving duty lining application in a corrosive, erosive and load bearing environment. Car park decks, wastewater lining, oil&gas tank marine bilge, tunnels, pipeline coating, railways, geotextile lining, potable water reservoir and etc.

Advantages

- Environmentally friendly- 100% solids
- Spray applied
- Excellent chemical resistance, thermal stability
- Very fast turn-around time, ideal for shut down time and nonstop in service environments
- Seamless and monolithic, including field joints
- Significantly enhances the durability of reinforced concrete
- Colour stability when coated with Eurotaff 500 aliphatic as a topcoat
- Can be applied at ambient temperature from -20° C to 70° C

Applications

- Car park decks
- Corrosive and erosive environments
- Heavy duty environments
- Potable and wastewater treatment
- Oil & gas tank, reservoir and pipeline coating
- Load bearing application such as bridges and railway decks
- Tunnel lining

Physical properties at 23° c

Features	Standards	units
Adhesion to concrete	ASTM D4541	360 Psi
Adhesion to steel	ASTM D4541	2010 Psi
Adhesion to timber	ASTM D4541	240 Psi
Abrasion membrane	ISO 5470-1:1999	155 Gm
Durometer harness	ASTM D2240	Shore D55-60
Tear strength	ASTM C1004	510 Pli
Tensile strength	UNE-EN ISO 527-3	19,5 Mpa
Flammability	Self-Extinguishing	Euroclase E
Water Vapour Transmission Speed	ISO 7783 Clase I	Sd>5m
Not migration to Potable Water	EU98/93/CE	Able
Foot Contact, Soils Walls	EN 1186:1:2002	Able
Elongation	ASTM DA 12-92	300%
Recommended Thickness	-	1 layer(2mm)

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Temperature resistant in asphaltic	-	160°c 8 hours

Instructions for application

Surface preparation

All the surface must be clean, and in sound condition. Substrates should be clean and basically dry. This material will spray satisfactorily on cold substrates. Further, the substrate should be free of grease, oil, dirt or other contaminants that will interfere with proper adhesion and/or coating quality.

Steel: Steel surfaces should be degreased and grit blasted to SA2½ immediately prior to application. It is recommended that specifiers follow the guidelines for surface preparation from the data sheet for the primer selected. The primer surface must be free from grease, oil, dirt and other loosely adhering materials.

Concrete: Remove all laitance, form oil, curing compounds, grease and other surface contaminants. Apply diamond grind or light shot-blast to provide smooth profile. Remove all dust by vacuum cleaning. Fill any large voids exposed using Eurotaff polyurea 300 Primer with (0.0-0.2) mm silica sand. Cement based substrates should be at least 21 days old and moisture content should not exceed 5% before coating.

Substrate preparation guideline

Substrate	Environment	Preparation	1st coat	2nd coat
Steel	Immersive/ chemical	Blast (75-200)mic	100 microns Eurotaff 300 Primer zinc	2 mm Eurotaff AR
Steel	Abrasive	Blast (75-200)mic	100 microns Eurotaff 300 Primer zinc	2 mm Eurotaff AR
Concrete	Immersive/ Chemical	Blast (75-200)mic	200 microns Eurotaff 300 Primer	2 mm Eurotaff AR
Concrete	Abrasive	Blast (75-200)mic	200 microns Eurotaff 300 Primer	2 mm Eurotaff AR

Priming

To follow proper preparation, the substrate must be primed. Sound and dry concrete and steel must be primed with **Eurotaff Primers**. For other surfaces consult Eurotaff. For concrete, suggested application rate is 250 microns per m^2. For steel substrates, suggested rate is 150 microns per m^2. A broadcast of kiln-dried sand is recommended for optimum adhesion properties. The primer shall be allowed to become touch-dry prior to application of Eurotaff Polyurea AR.

Colour Stable Topcoat

If colour stability is required, a minimum 0,100 mm film of **Eurotaff Polyurea 500** of the appropriate colour should be applied. Eurotaff Polyurea 500 Top coat should be applied to clean and dry Polyurea AR surface within 3/6 hours of application. For application exceeding 6 hours, surface should be recoated with Eurotaff Polyurea 300 and allowed to dry prior to application

Quality control criteria

The typical physical properties given above are derived from controlled laboratory testing of Eurotaff Polyurea AR, spray applied in accordance with the Eurotaff Polyurea Method Statement. Results derived from testing field-applied samples may vary depending on:

- Equipment condition
- Product temperature
- Weather conditions

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- Film thickness
- Age of tested sample

Curing

Gel time	12 seconds
Light Traffic	15 minutes
Curing starts	24 hours
Total curing	7 days

Properties material

Mixing ratio	1/1
Density component A isocionate	1
Density component B poliol	1,1
Viscosity at 25º component A (Isocionate)	750 Cps
Viscosity at 25º component B (Poliol)	850 Cps

Storage

Eurotaff Polyurea AR has a shelf life of 12 months if kept in a dry and clean warehouse. Air conditioned store between +20 C and +30 C in the original unopened containers. Any changes in colour have no negative effect on reactivity and physical properties of the coating.

Packaging and equipment:

- Part A (Isocyanate/ non-hazardous) in 225 kg drum
- Part B (Polyol-amina/ hazardous) in 230 kg drum
- Graco EXp2 Spray machine or similar with 2000 psi/2800 psi
- Air compressor with 100/130 psi
- Temperatures 80º poliol 80º Isocionate
- Hoses 75º

Technical support

Eurotaff offers a comprehensive technical support service to specifiers, end users and contractors. Eurotaff is also able to offer on-site technical and laboratorial assistance, field based R&Ds and professional specification assistance whole around the world.

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