

■ - BASF

We create chemistry

Elastocoat®

Polyurea coatings
for protection,
waterproofing, sealing,
anti-slip

ELASTOCOAT[®] polyurea coatings

A high-tech polyurea coating by BASF plc, exclusively available in the UK and Ireland from ECON Polyurethanes.

ELASTOCOAT[®] is ideal for reliable and enduring protection of all surfaces, whether concrete, timber or steel. Its versatility and high performance properties makes it the ideal solution for a wide range of applications.

Features and benefits

- Quickly and economically applied with no waste, minimum fuss and maximum effect
- Cost effective option for superior protection
- Seamless barrier repairs and protects against attack of sulphuric acid and other chemicals
- Curing in seconds, the film moulds itself to all shapes of surface achieving a trouble-free sealing of vertical surfaces
- Excellent crack-bridging properties with 400% elongation at break
- High-grade and durable, wear-resistant repairs achievable
- Resistant to low temperatures
- Solvent-free
- Easy to install by our specialist contractors – lastingly elastic
- Manufactured by BASF the leading global producer of polyureas and polyurethane spray foams
- BBA certified
- CE marked

Main uses



Sealing concrete surfaces

ELASTOCOAT[®] as a seamless and endless membrane provides a lasting seal. This gives protection against water penetration and consequently against concrete corrosion.

The polyurea coating is crack-bridging and clings, as a seamless sprayed-on barrier layer, like a liquid film. It cures within seconds, so even complicated shapes and vertical surfaces can be sealed without problem. In addition, ELASTOCOAT[®] conforms with CE EN 1504-2.





✓ SLIP RESISTANCE



Creating anti-slip flooring surfaces

ELASTOCOAT® will adhere to most deck types, which saves additional and time-consuming safety measures and increases the life span of the load-carrying decks.

The polyurea surface has been tested by DEKRA in accordance with VDI 2700.

✓ PROTECTION



Extending the life of metal surfaces

The excellent tensile strength and abrasion values offer superior protection against wear. This pays off in places where highly-abrasive bulk material is being moved, such as in mining.

At the same time the reliable polyurea coating guarantees a high degree of corrosion protection.

Key applications

Car parking decks

Multi-storey car parks are mostly built from concrete and steel structures with an exposed outdoor deck on top and covered indoor decks beneath. Penetrating moisture can reduce the structure's life-span through concrete corrosion. Therefore durable sealing of the decks is essential due to high dynamic loads to the entire structural design. It has to also withstand abrasion impact caused by tyre movements.

ELASTOCOAT® can be sprayed as a seamless membrane even on extensive areas and is ideal for sealing parking decks:

- Seamless and waterproof
- Durable and abrasion resistant
- Crack-bridging by flexible adaptation to concrete movements
- Chemically resistant, even to liquids from vehicles and engines
- Tolerant to humidity and temperature at application
- Fast curing, rapidly getting surface back to service



Inspection chambers

Biogenic sulphuric acid generated by the bacteria Thiobacillus in gas-sealed manholes, slurry systems or biogas plants rapidly lead to heavy concrete corrosion. Washed concrete appearance and decomposed metal components are typical signs of damage such as corrosion, crack formation and leakage. The result can be instability of the structure as well as infiltration.

ELASTOCOAT® repairs and protects against attack of sulphuric acid, sealing long-term. The rapir-curing liquid film moulds itself to all shapes of surface achieving a trouble-free sealing of vertical surfaces. It has excellent crack-bridging properties with 400% elongation at break. The result is a high-grade and durable repair.



Roof sealing

Damaged seals let moisture penetrate the roof. With disastrous consequences: concrete corrosion, long-term weakening of the structure of the entire building, irreversible damage to valuable interiors. The formation of mildew, which is expensive to remedy, threatens the health of the occupants. But leaking roofs are preventable; with ELASTOCOAT®.

Complex roof penetrations, such as skylights or air-conditioning shafts are trouble-spots for leaks. ELASTOCOAT® simply seals the affected areas. Like a liquid film, ELASTOCOAT® adapts itself evenly over the surface geometry of the roof and covers it: seamless, jointless, durable. It covers and seals vertical surfaces and it cures in a few seconds. Compared to the high cost of damage and loss of rental income which can result from leaks, the cost of the high-grade ELASTOCOAT® roof-sealant is a profitable investment.



Ramshackle, roof in need of repair.
ELASTOCOAT® is simply sprayed on. Finished.
ELASTOCOAT® seals long-term, without joints.
Additional benefit: anti-skid surface.

Leaking tanks

To prevent chemical storing tanks from leaking into ground water, most of these tanks are placed on or into areas called secondary containments. Unfortunately these areas are prone to leak themselves due to the concrete used for their construction. In order to prevent this leakage, a lining system needs to be installed, and very often this is mandatory by law.

One of the most promising lining systems is ELASTOCOAT®. Polyurea is widely used throughout many industries where aspects such as surface protection, chemical resistance, crack-bridging, durability play a major role. Due to its chemical nature, ELASTOCOAT® can be sprayed as a seamless membrane even on and into complex structures. Its moisture tolerant chemistry allows installation of the membrane at weather conditions where other traditional materials fail.



Chemically resistant floor application
Spraying of ELASTOCOAT®
PGS 15 approved storage area

Technical data

Description

ELASTOCOAT® C 6330/101 is a solvent-free, slow reacting, two component polyurea which can be manually applied for repairing defects or damages in the existing coating.

Composition

Polyol-component: Preparation based on polyol, catalyst, additives

Iso-Component: Preparation containing: diphenylmethane diisocyanate (MDI) = Iso 136/7

Storage

Polyurethane components are moisture sensitive.

Therefore they must be stored at all times in sealed, closed containers. The A-component (Polyol) must be homogenised by basic stirring before processing. More detailed information should be obtained from the separate data sheet entitled 'Information for in-coming material control, storage, material preparation and waste disposal' (available on request) and from the component data.

	Unit	Poly-ol-Comp	Iso-Comp.	Method
Density (20°C)	g/cm ³	1.00	1.11	Elastogran G 133-08
Viscosity (25°C)	mPa·s	220	800	Elastogran G 133-07
Shelf life	months	6	8	
Storage temperature	°C	20 – 25	20 – 25	

	Unit	Value	Method
Density	g/cm ³	1.00	DIN 53 420*
Hardness	Shore A	92 – 95	DIN 53 505*)
	Shore D	38 – 42	
Fire performance		CFL – s1	EN 13501-1
Tensile strength	N/mm ²	21	DIN 53 504*)
Elongation at break	%	425	
Tear strength	kN/m	58	DIN 53 515*)
Water vapour permeability	g mm/(m) 2(24h)	16	DIN 53 122
Methane permeability	cm ³ mm/(m) 2 (24h)	50	DIN 53 380
Taber abrasion	mg	140	ASTM D 1044
Volume resistivity	Ωcm	1,2 E+12	ISO 3915
Surface resistivi	Ω	6,8 E+13	IEC 60093

*Test Procedure according to DIN ...

The mechanical properties were measured by use of test specimens which were sprayed with a two component machine and stored for seven days under standard climatic conditions

Installation

ELASTOCOAT® polyurea coatings are quick and easy to install, as long as H&S and CDM criteria are observed.

ECON Polyurethanes operates a network of specialist Registered Contractors throughout the UK and Ireland. Please ask for details.



About ECON Polyurethanes

We are leading distributors in the UK and Ireland of polyurea coatings, polyurethane spray in place and injection systems from BASF plc. We are dedicated to providing high performance cost effective materials in line with our customer's needs. Our partnership with the industries longest established and most well respected manufacturer puts us at the forefront of the spray foam industry sector.

For more information, samples or if you would like to discuss a particular project please contact us at the details below.

About BASF

BASF plc creates chemistry for a sustainable future. As the world's largest chemical producer, they lead the way in developing and manufacturing polyurethane system solutions for construction, automotive, appliance leisure, seating, offshore and marine industries. Many of the systems are developed and formulated in close partnership with individual customers to meet their particular requirements.



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