

Flexituff[®] Polyurea

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What is Flexituff[®]?

Flexituff[®] is a 100% solids, spray applied, true polyurea elastomer coating that is highly elastomeric and exhibits extraordinary toughness. It is designed specifically for control of abrasion and/or corrosion. It offers high impact, tear and abrasion resistance while also displaying high flexibility and waterproofing properties.

Where Would You Use Flexituff[®]?

This product is suitable for use in mining and process industries as a resilient lining for hopper cars, conveyors, tanks, slurry systems and various equipment parts, which are subject to extreme abrasion. It is also suitable for use in sewerage and waste treatment plants on walls and rake arm assemblies in settling tanks, clarifiers and filters.

Flexituff[®] provides excellent protection when sprayed directly to pipe or over urethane foam pipe insulation. Due to its balance of physical properties, it is capable of withstanding rough installation treatment and burial in a variety of soils without the benefit of graded back fill.

Features and Benefits Of Flexituff[®]

2-3 mm Seamless Lining

Flexituff[®] is seamless, and therefore avoids the most common failure point of sheet lining systems. And, unlike sheet lining systems, **Flexituff[®]** forms a tenacious bond with specified Dulux primers as it cures, avoiding the need for adhesives, so the lining won't delaminate from the substrate due to adhesive degradation.

Rapid Cure

The **Flexituff[®]** surface is touch dry in 30 to 60 seconds and recoatable within 10 minutes (and whilst the coating is still warm). Therefore, the full coating system can be applied within a very short time-frame and the coated substrate returned to full service 24 hours later. The rapid cure characteristics of **Flexituff[®]** ensures short down-time and quick return to full production with minimal loss of productivity.

Highly Elastomeric and Fatigue Resistant

With an elongation factor of 425%, a tensile strength of 16.5 MPa (ASTM D412-92) and a tear strength of 49.7 N/mm (ASTM D624-86), **Flexituff[®]** is extremely flexible, elastomeric (stretchy), strong and tough. With such properties, **Flexituff[®]** is difficult to scratch, chip or otherwise damage, and therefore is ideal for protection against impact damage from hard, sharp and irregular objects such as gravel or rocks or from moving parts in machinery.

In situations where severe temperature cycling and subsequent expansion and contraction of the substrate can cause stress cracks in other two-pack coatings, **Flexituff[®]** can accommodate such movement repeatedly without failure.

The elastomeric nature of **Flexituff[®]** allows bridging of significant hairline cracks.



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Resistant to Degradation

Flexituff[®] is also highly **resistant to UV**, one of the major causes of degradation of rubber.

The **superior chemical resistance** of **Flexituff[®]** is yet another bonus. It exhibits excellent resistance to 10% Acetic Acid, 10% Hydrochloric Acid, ca. 40% Sulphuric Acid, 10% Nitric Acid, Hydrofluoric Acid, 20% Phosphoric Acid, 25% Ammonia and 46% Sodium Hydroxide even after two months immersion.

Flexituff[®] polyurea exhibits **low moisture reactivity** (unlike elastomeric polyurethanes) and thus is excellent as a waterproofing membrane.

Temperature Tolerant

Flexituff[®] is tolerant to greater extremes of temperature than most other coatings; it will readily cure on substrates down to 1°C, and maintain its flexibility between – 43°C and 120°C. In fact, **Flexituff[®]** can be applied under adverse conditions that prevent the use of other coating types.

Safe for Potable Water

Flexituff[®] is free of TDI or MOCA, and is suitable for potable water - **Flexituff[®]** passes AS4020. There is no volatile or flammable solvent present, which reduces hazards during transport and storage.

Summary

Flexituff[®] is an excellent protective tank lining, particularly against impact, abrasion and chemical attack in a wide range of temperatures and on substrates that may expand and contract due to temperature cycling.

The chemical and moisture resistance of **Flexituff[®]** makes it useful as tank lining or bunding in chemical storage facilities, as well as holding potable water.

For the **Flexituff[®]** product data sheet containing application information, product properties and chemical resistance, or for the Material Safety Data Sheet, go to www.duluxprotective.com.au.

For other information, please contact your Dulux Protective Coatings Technical Consultant.

