



Technical Data Sheet

LOCKWELL UHB

Urea Hydro Block Rapid Setting High Strength Water Stop Injection System

Product Description

Lockwell UHB (Urea Hydro Block) is a solvent free, 2-component, high strength polyurethane injection system. It is rapid setting designed as a water stop and also for ground and strata consolidation. The system contains fire retardants and is self-extinguishing.

The maximum exotherm reached during crosslinking is well under the maximum 150°C allowed as specified by the NSW Government Trade and Investment Mine Safety Guideline MDG 3608 August 2012, Appendix D1-TM003.

Features & Benefits

- A fast reacting polymer with strength and rigidity
- Will form a rigid foam in the presence of water
- Impermeable according to DIN 1048
- Without water, the polymer cures to a tough, resilient solid

Application Area

- High water volume control
- Filling and stabilizing cavities in fractured rock e.g. roadways,
- Consolidating other substrates such as sand and gravel
- Concrete structure repair

Product Data

	Lockwell Aqua Stop Part A	Lockwell Aqua Stop Part B
Appearance	Yellow liquid	Brown liquid
Viscosity (20°C)	400 cps	200 cps
Density (20°C)	1.12 g/ml	1.24 g/ml
Flash point	> 200°C	> 200°C

Lockwell UHB is a two component system, with both components mixed in equal volume proportions (1:1 by volume) using a 2-component injection pump coupled with a static in-line mixer.

Technical and Processing Data

Mix Ratio	1A:1B parts by volume	
Reaction time	30 seconds	
Set time	40 seconds, without contact of water, and up to 10 min when in contact with water (depending on amount of water)	
Foam expansion factor	Dependant on amount of water encountered (8 – 10 times)	
Density without foaming	1,200kg/m³	
Shore D Hardness as a solid	75	
Flexural strength as a solid	5 Mpa	
Elongation at break	20%	

Please note that the above figures are those measured in a controlled laboratory environment. Conditions on sites may influence these results however with correct handling and use, this would be minimal.

Cleaning of Injection Equipment

For short breaks, pump only Part A through the mixer.

For long breaks (e.g. storage, or after works complete) pump clean water through Part A pump / injection lines and pump clean engine oil through Part B pump / injection lines.

Storage

12 months if stored in dry, unopened containers within temperature range $+5^{\circ}$ C to $+35^{\circ}$ C. Beware of frost sensitivity for Part A.

February 2017



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Safety Precautions

Please refer to the Material Safety Data Sheets for full details. Although Lockwell UHB contains isocyanates, the cured foam is inert. Nevertheless, it is recommended that only experienced operators mix and spray this product. Wear appropriate PPE and avoid contact with skin and eyes. Mop up any spills with absorbent materials such as zeolite or sand, and dispose of in accordance with local regulations. Prevent unreacted product from entering drains.

Additional Information - Disclaimer

The information provided herein, especially recommendations for the usage and the application of our products, is based upon our knowledge and experience. Due to different materials and equipment used, as well as varying working conditions and environments beyond our control we strictly recommend carrying out intensive trials to test the suitability of our products with regard to the required processes and applications. This data sheet is provided free of charge and we do not accept any liability with regard to the above information or with regard to any verbal recommendation, except for cases where we are liable of gross negligence or false intention.