®ADSEAL HIGH GLOSS URETHANE

Moisture-cure Urethane Resin Solution

TECHD/10 03/05

INTRODUCTION

Adseal HIGH GLOSS URETHANE is a polyurethane resin, the solution of which is an isocyanate prepolymer based on Toluene di-isocyanate. This particular type of resin cures by absorption of moisture, from the atmosphere and from the substrate, to give hard coatings.

TYPICAL PROPERTIES

Non-volatile content	60%
Viscosity at 25°C (poise)	2.5-11.5
Colour (Gardner)	1
Specific Gravity (25/25°C)	1.00
Solvent	xylene/PMA
NCO	6%
Free isocyanate monomer	1.3%
Flash Point (Abel)	38°C

TYPICAL CURING PROPERTIES

Based on 0.1mm wet film on glass at 20°C / 60% relative humidity. (RH).

2 Hours	Touch dry
6 Hours	Tack-free
12 Hours	Hard
1 day	15 }
3 days	45 } Sward
7 days	50 } Hardness
28 days	55 }

Gas is released during the cure and this normally permeates through the film. However, if the film is applied too thickly, or the substrate is damp, bubbling of the coating can occur.

ACCELERATION OF CURE

The initial drying of films is controlled by evaporation of solvent. The development of hardness can be significantly increased by using accelerators such as MCF (See Technical Data Sheet for MCF).

USES

Adseal HIGH GLOSS URETHANE is used for hard, rigid, high-build surface sealing or coatings such as floor paints and base coats for flake floor systems. These coatings can be pigmented.

Pigmentation

Storable pigmented systems may be produced by mechanical dispersal of PU- compatible paste, directly into Adseal HIGH GLOSS URETHANE. However, caution must be taken during dispersion to avoid contact with moist air, which will initiate the curing process.

On site pigmentation can be easily achieved using various pigments. Users should first check on compatibility.

Related Materials

The basic prepolymer is also available in a solvent consisting of a 50/50 split between Solvesso 100 and Methoxy Propyl Acetate (Designated Adsea HIGH GLOSS URETHANEHF). Other concentrations and modifications such as inclusion of U.V. stabilisers can be produced by arrangement.

STORAGE

Moisture, including moist air, will initiate the cure of Adsea HIGH GLOSS URETHANE. Wherever possible store in original unopened containers until needed. Part used cans and newly decanted cans should be purged with dry nitrogen before resealing.

Store out of direct sunlight in a humidity-controlled atmosphere, at 5-30°C.

Shelf Life
Six months from date of delivery in un-opened containers.

FIRST AID

Eye Contact
Wash out with copious amount of clean water and seek medical advice.

Skin Contact
Remove excess with clean cloth. Clean with proprietary cleansing cream and wash with soap and water. On no account use solvent unless medically advised. Discard contaminated clothing.

Ingestion
Do NOT induce vomiting. Keep warm and rest. Seek medical advice.

Inhalation
In cases where there is difficulty in breathing, remove to fresh air and summon medical assistance. Where breathing has ceased, summon medical help, apply artificial respiration and give oxygen.

In Case of Fire
Extinguish with sand or dry chemical foam. Avoid the use of water. If the fire is in a confined space, self-contained breathing apparatus is necessary because of the noxious or toxic fumes produced by thermal decomposition.

In Case of Spills
Observe foregoing precautions. Prevent entering watercourses or drains by use of absorbent materials such as sand. Scoop up and place in container for disposal.

Disposal
Empty cans and drums retain vapours of the solvent and should be removed by an approved contractor to an approved site.

HEALTH AND SAFETY

Adsea HIGH GLOSS URETHANE contains Toluene di-isocyanate, Xylene and Methoxy Propyl Acetate.

Harmful
- Avoid contact with skin and eyes.
- Avoid inhalation of fumes.
- May cause sensitisation in some cases

Flammable
- Avoid naked flames.
- Use flameproof electrical appliances.

Precautions
- Wear eye protection and gloves.
- Provide good ventilation and extraction.
- Medical screening of operatives who already suffer from respiratory ailments such as asthma is an advisable routine procedure