# DIFFUSION ENGINEERS LTD



#### DIFFFLEX

TechnicalData: DIFFCOR/CR/06-18

# **Product Description:**

**DIFF-FLEX** is a high tech polyurethane high solids, low viscosity, chemical resistant urethane with excellent wear and durability coating combining excellent strength with outstanding flexibility. The solvent free formula product mixed with fillers for extra thickness and to lower the cost per unit. The material is spread to achieve a self-leveling and fast curing. Selected rubber texture granules and/or sand may be broadcast on surface which t not yet completely cured.

DIFF-FLEX has excellent chemical resistance acids/alkalis/solvents in spillage and occasional contact situations. It has a Shore A Hardness of 85 plus, superb elastomeric properties with unbeatable tear strength that does not chip off.

### **Application:**

DIFF-FLEX is designed to create seamless, flexible, durable, slip resistant, decorative, and protective Interior surfaces such as mechanical room floors, work areas, shower pans and stalls, display floors, Garage Floors, Industrial Floors, Any Concrete Floor.

Technology	Polyurethane	
Chemical Type	Polyol / Isocynate	
Appearance(Base)	white	
Appearance(Activator)	Off white	
Appearance(Mixed)	Off white	
Components	Two component-requires mixing	
Mix Ratio, by volume Resin: Hardener	3:1	
Mix Ratio, by weight Resin: Hardener	2.3:1	
Cure	Room temperature cure	
Application	Concrete flooring	

# TYPICAL PROPERTIES OF UNCURED MATERIAL

Base:

Viscosity: liauid Weight per liter: 1.3 kg/liter Hardener: Viscosity: liquid 1.05kg/liter

Weight per liter: Mixed:

Viscosity Semisolid/paste

0.6 m<sup>2</sup> @ 1mm thick/1kg Coverage

#### TYPICAL CURING PERFORMANCE

**Curing Properties** 

Gel Time @ Ambient temp, minutes 20-25

#### **Curing time vs. Temperature**

Ambient temp	20°C	25°C	30°C
Pot life	35-40min	25-30min	20-25 min
Full cure	12-14hrs	10-12hrs	08-10hrs.

Typical cured properties of material

Hardness shore A (ASTM D2240) 80-84 1000-1500 Psi Tensile strength (ASTM D882) Elongation At break %( ASTM D882) 150% Volume solid 90%

# SURFACE PREPARATION:

DIFF-FLEX should be applied with a notched trowel to spread material on properly cleaned, prepared, graded, Flashed, and primed dry substrates. Application of the DIFF-FLEX System should be done in one complete step to create a smooth uniform self leveling surface without cold joints, lines or streaks. For Concrete surface Preparation follow the standard Concrete preparation procedure or as per Recommended practice. All existing dirt, grease and oil to be removed. Prime the repair area with DIFF-FLOOR PRIME using a soft bristled brush to give an even but low coating thickness. Apply DIFF-FLEX in once the primer is tack free to recommended thickness.

Mix "base and activator" in specified ration which is supplied in contrasting colors, on clean flat surface. Mix with spatula until a uniform blend free of streaks is obtained.

# Application

The mixed material should be applied using a clean brush or spatula to the prepared area; application should be carried out as soon as possible after surface preparation is complete within 15

