Ureflex

Ureflex is a solvent free, two component, polyurethane based elastomeric membrane to yield a DFT of over 400 microns to 2000 microns. **Ureflex** is highly flexible, yet tough designed to provide an elastomeric coating on concrete substrates. It possesses a unique balance of tensile strength, elongation and hardness, resulting in outstanding flexibility, wear and impact resistance. It is used as elastomeric membrane for deck coatings for multi storey car parks (MSCPs). Ureflex is recommended where membranes of higher elongation are preferred.

Properties:

- Excellent flexibility
- Moderately abrasion resistant.
- Able to bridge concrete cracks.
- Resistant to fuel, break oils, acid etc.
- Excellent bond to under coats and top coats.

Uses:

- Car decks.
- Pedestrian walkways.
- Parking areas.

Direction to use:

- Ensure that CDS (Clean, Dry and Sound) test is conducted surface on the concrete substrate.
- Surface preparation like scarification, grinding or shot blasting is done to achieve a surface profile of 150-200 microns.
- Priming : Apply Cipoxy 15 or Aquoxy 50.
- Broadcasting of quartz sand : Sprinkle evenly selected quartz sand (FQ Sand 40 or 60) @ 1-2 kg per sq m. Allow to dry for 6-7 hours.
- Ureflex contains two components viz. resin and hardener. Mix thoroughly resin and hardener in the volumetric ratio of 2 :1 and apply by a roller at a coverage to yield 400-1000 microns For levelling and deaeration, spike rollers are used. Allow to cure for 6 hours. Apply suitable PU or Epoxy top coat.

Typical Physical properties:

Type	Aromatic polyisocyanate based.
Volume Solids	100%
Ratio of mixing	2 : 1
Pot life	20-25 minutes
Density :	
Resin	1.256
Hardener	1.200
Mixed	1.260
Viscosity at 27°C	
Resin	106 - 110 poise
Hardener	55 - 60 sec
Mixed	34 poise (SP = 5)
Surface dry	1-2 hours
Tack free dry	3-4 hours
Hard dry	Overnight
Theoretical Coverage	1 sq.m. / ltr @ 1000 microns
Application method	Roller / trowel.
Clean up	PUT 502
Shelf life	6 months in the unopened container

Typical properties (Cured film)

Tensile strength	ASTM D 412	14 N / mm^2
Elongation	ASTM D 412	120-150%
Tear strength	ASTM D 1004	200 lb / in
Hardness, Shore D	ASTM D 2240	30
Flexibility	1/8 in conical mandrill test	Passes
Impact resistance	ASTM D 2794	Passes
Water absorption	ASTM D 570	< 1%
Bond strength	ASTM D 4541	3 N / mm^2
Permeance @ 1000 microns	ASTM E 398	1.5 -2.0 perms