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Section: # 07000

## PLY-SHIELD

POLYURETHANE LIQUID MEMBRANE  
FOR WATERPROOFING & PROTECTION

### DESCRIPTION

PLY-SHIELD is one component polyurethane fluid that cures with the humidity in the atmosphere. It produces an elastic strong film with excellent adhesion to different surfaces.

PLY-SHIELD contains a small percentage of solvent (xylol) and it can be thinned also with xylene.

PLY-SHIELD is based on pure elastomeric hydrophobic polyurethane resin with special inorganic fillers that provide chemical, UV, mechanical and thermal resistance.

### APPLICATIONS

The application of PLY-SHIELD is very easy, it is only one component and it either brushed, rolled or applied by airless spray.

#### SURFACE PREPARATION

GENERAL: Substrates must be clean and dry with no oils, grease, or loose debris.

CONCRETE: concrete must exhibit minimum 2500 psi compressive strength and be free of release agents and curing compounds.

The substrate must be clean, dry, and free of contaminates.

### ADVANTAGES

Plyshield is specially formulated to meet the demands of today's waterproofing market

- Excellent adhesion on any surface
- Excellent weather and UV resistance it's white color reflects much of the solar energy and so reduces the internal temperature of the building considerably.
- Excellent mechanical properties, high tensile, and tear strength, and strong abrasion resistance
- Excellent thermal resistance.
- Resistance to the cold: the film remains elastic even downs at the temperature  $-50^{\circ}\text{C}$
- Anti-bacteria.
- Excellent chemical resistance.

PLY-SHIELD when cured is absolutely non-toxic and it can be used in the water tanks.

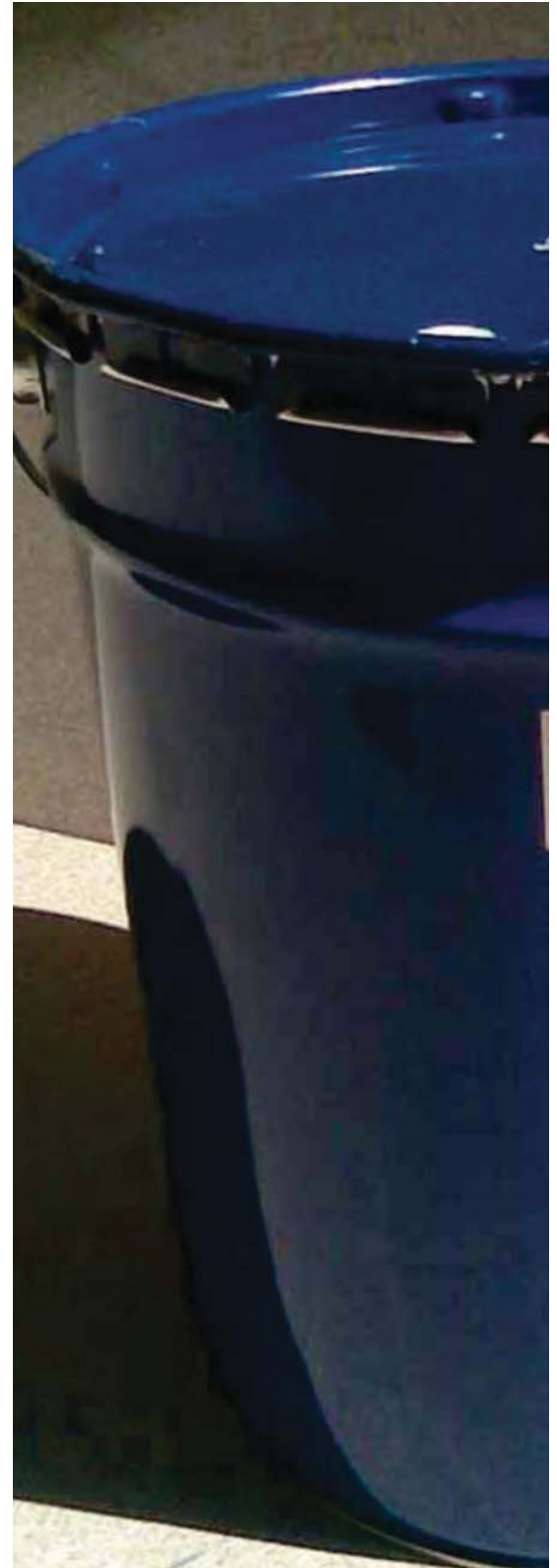
Moisture vapor transmission: PLY-SHIELD films breaths; so there is no accumulation of humidity under the coat.

### PACKAGING

PLY-SHIELD is packed in 6kg & 25 Kg pails.

#### ShelfLife:

Notless than12 months if kept in the manufacturer's undamaged sealed containers and stored in a dry and cool environment.



## ● PRECAUTIONS

- Do not breathe fumes/vapour/spray.
  - Avoid contact with skin and eyes. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
  - In case of insufficient ventilation, wear suitable respiratory equipment.
- To clean the floor and all objects contaminated by this material, use pure XYLENE.

## ● PHYSICAL AND CHEMICAL CHARACTERISTICS

PLY-SHIELD exceeds the requirements of ASTM C 836-76

- . Density : 1.4 Gr/cm<sup>3</sup> - ISO 2811 - DIN 53217 - ASTM D 1475 @ 20 C
- . Viscosity : @ 20 °C - ASTM D 1200/88 - 5000 Cst  
>> 10% Toluol in the product 1000 Cst
- . Flash point : 37 °C

### THE FILM

- . Elasticity : more than 400% - DIN 53217 - ASTM D412
- . Hardness : 70 shore A - ISO R 868 - DIN 53 505 - ASTM D 2240
- . Service temperature : -50 °C up to 90 °C
- . Max. temperature (shock) : 250 °C
- . Tensile strength at break : 60 Kg/cm<sup>2</sup> - DIN 52455 - ASTM D412
- . Weather resistance : passed - ASTM G53 - quv accelerated weathering test  
(4hr uv, at 60 °C (uvb-lamps) & 4hr cond at 50 °C)
- . Flammability : Passed - DIN 4102-B2
- . Packaging : 25 Lt Pail / 5 Lt Pail
- . Stability : min 12 months
- . Colors : white, brick, red, green, aluminum & black
- . Consumption : 1 to 2 Kg/m depending on the surface to be coated
- . Solids By Volume : 86%
- . Adhesion to concrete : 3kg/cm - ASTM D4541
- . Permeability : 0.8gr/m<sup>2</sup>.hr - ASTM E96 [ water method ]
- . Softening Point ring&ball : 134 °C - ASTM D36
- . Tensile set [ after 30% elong.] : <3% - ASTM D412
- . Acid resistance : < PH=2, 10 days @ RT no significant elastomeric change

PLY-SHIELD bridge cracks up to 1mm. For wider cracks fill with PLYFLEX 1200

CODE	DESCRIPTION	COLOR	UNIT OF SALE	QUANTITY	BASE UNIT
PS212025	PLY-SHIELD One Part PU Coating	White	Pail	25	Kg
PS212031	PLY-SHIELD One Part PU Coating	Black	Pail	25	Kg
PS222001	PLY-SHIELD One Part PU Coating	White	Tin	6	Kg
PS222006	PLY-SHIELD One Part PU Coating	Black	Tin	6	Kg

\*Other Colors are available upon request

PLY-SHIELD is manufactured in E.U.



EXPORT ORDERS: Product size and packaging may change slightly to accommodate export shipping requirements.  
 WARRANTY: We warrant our materials to be of good quality and will replace materials found defective, providing however, that the buyer shall examine the materials when received and promptly notify use of any defect before the materials are used or incorporated into a structure of which they are intended. Unless otherwise agreed to in writing, this warranty shall extend only to comply with specifications of materials manufactured and published by PLYDEX Company and made available to the buyer at request. We cannot warrant nor in any way guarantee particular methods, use or applications and performance, nor can we warrant that the materials will be suitable for any intended use. This warranty is in lieu of all others expressed or implied and may not be extended representatives, written sale information on drawings, nor do our distributors or salesmen or any representatives of distributors or of this company have any authority to extend any guarantee beyond that outlined above or to waive the limitations of the seller's liability.