TECHNICAL DATA SHEET

PENNPOOL

Flexible Underwater Coating

DESCRIPTION

PENNPOOL is a high solids waterbased synthetic elastomeric compound based on ATV rubber copolymer, inert fillers, pigments and plasticizers.

PENNPOOL is supplied as a single component thixotropic soft paste which is easily applied by brush or spray, to form upon drying, a tough durable and decorative elastic sealer. As a heavy flexible coating, it will effectively bond to concrete, wood, metal and other common surface.

Note: Consult PennKote Limited for specific data on applications not detailed in this literature.

USES

PENNPOOL is specially used as underwater protection for swimming pools, basins, reflection pools, reservoirs, industrial water containers and catchment devices (see limitations). Its inert and non-toxic qualities make it suitable for coating potable water reservoirs, fish ponds etc.

LIMITATIONS

PENNPOOL is not to be applied over fresh or lightweight concrete containing moisture or certain curing compounds. **PENNPOOL** cannot be applied to surfaces that are either wet, oily, frosted, dirty or contaminated in any way.

PENNPOOL membrane should never be applied over inground concrete pools, reservoirs or other installations subject to continuous or periodical negative water or capillary pressure. Existing installation shall be inspected for presence of cracks, porosity and other defects found in concrete shell as well as evidence of negative water pressure due to improper construction, poor drainage of the surrounding soil etc. prior to application of **PENNPOOL. PENNPOOL** may not be used in direct contact or cleaned with aromatic and aliphatic solvents.

Primarily designed as underwater membrane, **PENNPOOL** is also used in industrial application as chemically resistant tank coating because of its good resistance to most acids and alkalis as well as water soluble inorganic and organic chemicals including alcohols and glycols. Coal tar modified version, **PENNPOOL** CT offers additional chemical resistance for certain industrial applications. For specific Chemical Resistance, please refer to chemical properties data or contact the manufacturer.

SPECIFICATION

Elastomeric underwater coating shall be **PENNPOOL** (specify colour) minimum 0.76 mm (30 mil thick membrane) as manufactured by PennKote Limited. Application is to be carried out by skilled applicator approved by PennKote Limited and in strict accordance with manufacturers instructions.

MATERIALS

Flexible underwater coating shall be single component waterbased compound **PENNPOOL** by PennKote Limited supplied in 204 litre (45 gallon), 22.7 litre (5 gallon) and
4.53 litre (1 gallon) containers.

Primers and Sealers shall be **PENNSEALER, PENNPRIMER-METAL OR PENNPRIMER-BITUMEN** (depending on the substrate) by PennKote Limited or PennKote approved alternate.

Reinforcing flexible fabric shall be **PENNFLEX** nylon fabric by PennKote or PennKote approved alternate. **PENNFLEX** is available in 45 metre rolls (150') ranging from 100 mm (4") to 1.5 m (5').

PennKote Ltd. www.pennkote.com Phone:905.683.6447 Fax:905.428.3073 516 Finley Avenue, Ajax, ON, Canada, L1S 2E3

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APPLICATION

Surface Preparation: Prepare the surface by removing all loose material, dust, dirt and grease. Heavily contaminated surfaces must be washed repeatedly with diluted muriatic acid and water. All surfaces must be dry. On porous surfaces, apply one coat of **PENNSEALER** at the approximate rate of 6 to 10 sq.m/litre (300-500 sqft/gallon) On metal, apply one coat of **PENNPRIMER-METAL** or metal primer approved by the manufacturer, at the rate of 8 to 12sq.m/litre (400-600 sq.ft. per gallon).

For applications over previously coated pools, all existing paints and finishes (glazing included) should be removed to the soundbonded substrate surface by water-blasting, sandblasting or wire brushing prior to the application of Primer or Sealer. Certain types of coatings if well bonded can be overcoated with **PENNPOOL** after compatibility and adhesion is positively established.

Concrete Repairs: Existing porous, weak, loose or deteriorated concrete shall be levelled or repaired with **SPEEDCRETE** by PennKote or equal material and/or **DRYCON & IPANEX "R"** by PennKote prior to application of **PENNPOOL.** Consult appropriate literature regarding details and application of these materials.

PRODUCT APPLICATION

At least two coats are required on all surfaces. **PENNPOOL** may be applied by roller, brush, spray or squeegee at the maximum rate of 2 sq.m/litre (100 sq.ft./gallon). Allow first coat to dry for at least 2 hours or more (see note) before applying second coat uniformly at the same rate. Two coats will upon drying, product a seamless flexible coating approximately 0.75 mm (30 mil) thick.

Flashing, cracks, gaps, joints and transitions: Use **PENNFLEX** reinforcing fabric. Fabric is centred over joint and rolled into a fresh first coat of **PENNPOOL** and allowed to dry. A second coat of **PENNPOOL** is applied over embedded fabric and extended at least 150 mm (6") on each side beyond the fabric edges.

Dilution: PENNPOOL is water reducible up to a maximum 10% by volume. Use cool clean water and mix thoroughly until uniform.

IMPORTANT: KEEP FROM FREEZING. Do not apply when surface temperature is below 10ºC(50ºF) Since all components of **PENNPOOL** are water reducible, care should be taken not to apply when rain is forecast or a severe drop in temperature is imminent.
Do not apply when surface is hotter than 55ºC (130ºF).

Clean-up: Clean all tools immediately after use with water or soap and water. If dry and hard use varsol or xylene.

PHYSICAL PROPERTIES & DATA

Colour	Black, white, aqua green and aqua blue.
Coverage & Thickness	Approximately 2 sq.m/litre (100 sq.ft/gallon) for 0.38mm (15 mil) approximate dry thickness per coat. Minimum two coats or, 0.76mm (30 mil) dry thickness is required.
Drying Time	8 to 14 hours*
Drying Time between coats	2 to 10 hours*
Curing Time	72 hours to 7 days*

***NOTE: PENNPOOL** is a waterbased compound and its drying and concurrent curing time will depend on temperature, humidity, air movement etc. Care must be taken during application under cold, humid and stationary (confined) conditions. Forced air circulation with or without heat may be required to achieve adequate drying conditions.

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Shelf Life	Indefinite if stored in properly closed container where temperatures are always above freezing. **NOTE:** Due to thixotropic nature of this material, some thickening may occur after storage. Mixing with an agitator will restore the original creamy consistency.
Application Temperature	Between 10ºC (50ºF) and 55ºC (130ºF).
Toxicity	Cured **PENNPOOL** membrane is non-toxic. Fresh compound is waterbased and does not contain volatile or harmful vapours. It is safe to use in enclosed areas. **CAUTION:** Fresh material is non-flammable. **It does not** contain volatile and flammable solvents. **HARMFUL IF SWALLOWED. KEEP OUT OF REACH OF CHILDREN.**
Water Absorption (ORF Method)	0.76% by weight
Water Vapour Transmission (ASTM E96)	0.009 metric perm – CM
Shear Bond Strength (concrete) (ORF method)	39 psi
Weather Resistance (ASTM D-822)	Unaffected after 2500 hours exposure in accelerated weathering.
Colour Fastness (ASTM E188)	Unaffected after 48 hours exposure.
Maximum Service Temperature	Continuous - 180ºF Intermittent - 240ºF
Environmental Resistance	Excellent resistant to water, steam, temperature extremes, ozone, UV, industrial atmospheres and marine environment.
Chemical Resistance	Highly resistant to salts, moderate to high concentrations of acids and alkalis, most water soluble chemicals including alcohol. Resistant to bacteria and fungi.

WARRANTY

PennKote Ltd. warrants its products against manufacturing and material defects. PennKote will, for a period of two years from the date of application, supply replacement material for product proven to be defective. This warranty is in lieu of any and all other warranties expressed or implied. Pennkote Ltd. and any Distributor or Retailer of this product accept no liability for incidental or consequential damage due to defective material or improper installation. The user shall determine the suitability of this product for intended use.

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