Durex® Acrybond Concentrate

Concentrated 100% Acrylic Polymer Cement Modifier

Description

Durex® Acrybond Concentrate is a water-based 100% acrylic polymer cement additive. It is a highly concentrated versatile additive for cement mixes, specially formulated to optimize physical properties of Portland cement-based mixes in a wide variety of applications.

Uses

When properly mixed with cement, Durex® Acrybond Concentrate is used as:

- Conventional site-applied plaster base
- Concrete topping
- Repairs of honeycombed concrete
- Flash patching
- Parging coat for concrete block
- Versatile general bonding additive

Features

When properly mixed with cement, Durex® Acrybond Concentrate provides:

- Excellent durability and strength
- Superior compressive, flexural, adhesive and impact strength
- Excellent abrasion resistance
- High resistance to chloride penetration
- Low moisture absorption rate
- Excellent adhesion to a wide variety of concrete and masonry surfaces; use of a primer is still recommended
- No requirement for moisture curing; optimum properties are obtained by air-curing at ambient temperatures
- Better and more complete hydration of cement
- Reduced shrinkage and cracking of the mixes

TECHNICAL DATA

PHYSICAL PROPERTIES	
Product Type	Water-based acrylic emulsion
Appearance	White milky liquid
Viscosity	60 – 100 cps
pH Level	9.0 to 9.5
Toxicity	Non-toxic

PERFORMANCE PROPERTIES	TEST METHOD	RESULTS
Tensile Strength	ASTM C190	4.24 MPa (615 psi)
Compressive Strength	ASTM C109	39.40 MPa (5715 psi)
Flexural Strength	ASTM 348	10.9 MPa (650 psi)
Shear Bond	ASTM C882	4.48 MPa (650 psi)
Impact Strength	ASTM E2486	35 N.m (310 lb.in)
Abrasion Resistance	ASTM D4060	3500 cycles

Packaging

Durex® Acrybond Concentrate is readily available in 4 litre containers, 18.9 litre pails and 45 gallon (205 litres) drums.

Storage

Store Durex® Acrybond Concentrate in a dry, vented, waterproof location, stacked off the ground with ambient temperatures above 5°C (41°F). Keep material dry, protected from rapid temperature changes, dampness and moisture and away from direct sunlight. **KEEP FROM FREEZING**. **DISCARD ANY FROZEN MATERIALS**.

Mixing Procedure

Do not substitute Durex® Acrybond Concentrate with any other type of mixing liquid medium for the above-recommended formulations unless otherwise approved in writing by Durabond Products Limited. Thoroughly mix Durex® Acrybond Concentrate before each use. Discard all frozen materials, materials which have formed solid lumps at the bottom of the container and materials which do not appear to be of a homogeneous viscosity. Optimum properties of cement mixes are obtained when Durex® Acrybond Concentrate is added at a ratio of 20% by weight of cement in the formula 9 litres (2 gal) Durex® Acrybond Concentrate to 1 bag (40 kg) of Portland cement.

- Parge coat for concrete block
  1 bag (40 kg) Portland cement Type 10
  68 kg (150 lb) #35 mesh silica sand
  9 litres Durex® Acrybond Concentrate
  4 litres water
  Coverage: 14 m² at 3.2 mm thick (150 ft² at 1/8")

- Concrete topping from 12 mm - 25 mm (1/2" - 1")
  1 bag (40 kg) Portland cement Type 10
  136 kg (300 lbs) concrete sand
  9 litres Durex® Acrybond Concentrate
  10 litres water
  Coverage: 7 m² at 12.7 mm thick (75 ft² at 1/2")

- Concrete topping over 25 mm (1")
  1 bag Portland cement Type 10
  59 kg (130 lbs) concrete sand
  100 kg (220 lbs) pea gravel
  9 litres Durex® Acrybond Concentrate
  13 litres water

- Conventional site-batched plaster base
  1 bag (40 kg) Portland cement Type 10
  1/2 bag (15 kg) masonry cement
  136 kg (300 lbs) clean plaster sand
  9 litres Durex® Acrybond Concentrate
  13 litres water
  Coverage: 9.3 m² @ 12.7 mm (100 ft² at 1/2") thick (two - 1/4" thick coats)

Mix the Durex® Acrybond Concentrate with the materials in the proportions noted. The viscosity of the matrix can be adjusted as desired by adding a small amount of water. Mix thoroughly until matrix is free of lumps. Do not over mix or mix with mixing paddles at speeds over 600 rpm as excessive air will be induced into the mix which will affect the long-term performance of the mixture. Let mixture stand for 5 to 10 minutes, then re-temper and use. Discard all mixtures which begin to harden a second time.

Limitations

Not recommended for use when ambient, surface and material temperatures are less than 5°C (41°F) during application and curing period.

Clean-up

Clean all tools promptly after each use with clean water. Do not allow mixes to dry on tools.

Health and Safety

For information and advice on the safe handling, storage and disposal of chemical products, refer to the most recent SDS sheet containing physical, environmental, toxic and other safety/materials handling data. For industrial use only. Keep out of reach of children.

Warranty

Durabond warrants this product is free of manufacturing defects, and will replace at no charge, provided it has been applied within 12 months of purchase, it has been installed for uses suitable for this product and in accordance with the manufacturer's instructions.

Technical Services

Technical support is available upon request at info@durabond.com. For the latest version of this data sheet, please visit our website at www.durabond.com, call toll free at 1-877-DURABOND (387-2266) or speak with your Durabond Products Ltd. sales representative.