

## PRODUCT DESCRIPTION

Niacrete is a multi component blended cementitious compound of select silica aggregates and mineral additives designed to provide a highly balanced composition, producing a stone-hard plastic cast of thin section concrete of exceptional strength.

## PRODUCT FEATURES

- Freeze-thaw resistance after 25 cycles as per ASTM C-672 showed no visible change in appearance or loss in weight, ie. high resistance to scaling and de-icing chemicals
- Shear bond (adhesion test) after just three days curing, the bond strength was greater than the inherent flexural strength of the concrete tile. The break occurred within the tile itself rather than at the bond interface of the Niacrete cement mortar.
- Niacrete sealer, applied in a minimum of three coats, is an acrylic resin-based compound that, when cured, provides a lustrous, durable surface easily maintained with normal water-based commercial cleaners. It is unaffected by cooking liquid spills at temperatures up to 150°C. The ultimate sealer is a 2 component Epoxy (see NPC Epoxal 100 series of coatings) which must be used for interior of buildings.
- Niacrete colours and colour blends are produced with oxide pigments. They are everlasting, non fading stone colours which are then sealed with acrylic sealer. These colours are totally unaffected by UVR.

## CRAFTING TECHNIQUES

Niacrete applicators require special training to acquire the skills necessary to design, apply and colour the product.

Niacrete has all the characteristics to produce cast on stone, in all shapes, as well as brick designs of unlimited shades and colours to rival the natural stone for floors and walls, in foyers, patios, verandas, steps, kitchens, restaurants, for commercial and industrial centres, swimming pools, garden ponds, as well as driveways, walkways and retaining walls.

### TECHNICAL DATA

**Flow Value:** ASTM C-230-83, 93 very trowellable

**Water Absorption:** 24 hour immersion: 5.6% before sealer is applied, after no moisture penetration.

**Compressive Strength PSI:** ASTM C-109-80

1848 psi @ 3 days  
4625 psi @ 7 days  
5400 psi @ 14 days  
7280 psi @ 28 days

**Flexural Strength:** ASTM C-293-79

669 psi @ 14 days  
812 psi @ 28 days

**Tensile Strength:** ASTM C-190-82

491 psi @ 7 days  
541 psi @ 28 days

**Shear Bond:** ASTM C-882-78

516 psi Slant Shear

**Abrasion Resistance:** CAN 2.75-1-M77

25.6 gr. loss (excellent)

**Linear Shrinkage:** ASTM C-157-80

0.011 @ 1 days  
0.097 @ 7 days  
0.114 @ 14 days

**ULC Fire Cube Test:** CAN S-114

No flame - small  
Weight loss - passed