

TECHNOCRYL 2001

Acrylic polymer admixture for cement-based floor mixes.

CI/SFB 1976

YU3

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2001

DATA SHEET

SPECIAL PROPERTIES

- Improved wear resistance in both wet or dry conditions
- Improved resistance to grease and oil damage
- Good impact resistance
- Excellent load bearing properties
- Allows heavy duty screeds to be laid safely at 6-12 mm thickness as opposed to typical 38-50mm
- No hacking of the sub-floors is needed - except on badly contaminated or weak substrates
- Excellent adhesion
- Fewer expansion joints needed due to resilience of the topping

No special equipment needed; the flooring mixes are drier than normal, but applications may be carried out using conventional methods.

Addition of Technocryl 2001 to cement-based floor mixes of all descriptions, whether externally or internally, provides major improvements in durability and ease of laying.

DESCRIPTION

Technocryl 2001 is an acrylic water-based dispersion with 50% active solids, specially modified to be compatible with cement-based mixes. It is designed for producing heavy industrial and agricultural floors, bedding grouts for machinery and repair mortars. It can be used both internally or externally in areas of continuous or intermittent water contact. Technocryl 2001 improves the chemical and water resistance of cement based mixes and is suitable for use in effluent tanks, dairies, food factories, fertiliser stores etc.

SITE WORK

Preparation

The floors should be laid as per BS 8204 ; Part 3: 1993 : 'Code of practice for polymer modified cementitious wearing surfaces'. All surfaces must be sound, free from dust, laitence, grease, oil, paint and any other contaminants which may effect adhesion. Coatings should be removed by mechanical means, e.g., enclosed shot blasting, scabbling or scarification.

The substrate should be vacuum cleaned prior to priming. Substrates heavily contaminated by oil or grease may need treatment with hot compressed air. Avoid laying the floor in cold or frosty weather. Maintain air, floor and material temperature at 6°C to 25°C for 48 hours before and after laying the floor. Concrete substrates must be fully cured and

must incorporate an effective damp proof membrane.

The sands/aggregates to be used should comply with BS 882 : 1992 : 'Specification for aggregate from natural sources for concrete' and BS 63: Part 1:1987: 'Specification for single-sized aggregate for general purposes'.

Priming

The sub-floor must be primed to ensure strong bonding of the topping. Prime only as much of the floor as can be easily laid before the primer dries or sets.

On dense or rough/uneven surfaces use neat cement or the dry mix which is to be used for the floor. Add a 1:1 mixture of Technocryl 2001 and cement or dry mix to product a wet, brushable consistency slurry. Brush the wet mix firmly into the substrate with a stiff broom. Begin mixing and laying the floor topping whilst the slurry is still wet/green.

On dry, sound porous sub-floors with no movement, use a primer mix consisting of 1 part Technocryl 2001 to 1 part water. Brush well into the substrate. Leave to dry for a minimum 4 hours at ambient temperature/conditions (20°C/R.H.50%). Re-apply the Technocryl 2001/water mixture, to a convenient area at a time; mix and lay the topping whilst this second coat is still wet.

Mixing

Machine mixing gives good results, although hand mixing is also very reliable, providing care is taken to avoid excess air entrainment. To gauge the water demand of the mix a trial batch should be prepared by hand. Blend the sand, aggregate and cement thoroughly. Add Technocryl 2001 to the dry mix. Work the mix with a shovel, adding water gradually, breaking up all lumps. Aim for a semi-dry consistency. The total water content (including the water in polymer dispersion and sand) should NOT exceed 0.4 water/cement ratio. The maximum water content of 0.4 water/cement ratio should only be used for floor topping of greater than 25 mm thick. The mix is ready to lay when it is loose and crumbly, but can either be closed if worked gently with float or holds together when squeezed in the hand.

The amount of water needed to arrive at this consistency can then be used for further batches of the same mix. The same ratio can also be used for machine mixing. Mix the sand, aggregate and cement thoroughly before adding Technocryl 2001 and water. Mix the wet ingredients for a few minutes only (Technocryl 2001 has excellent de-foaming characteristics but the risk of air entrainment should be minimised where possible).

Laying and Curing

Spread the wet mix 6-12 mm (according to mix



type) on the primed sub-floor. Uneven surfaces should not be patched but should be laid normally and any depressions filled. Compact with a tamping bar to remove air from the mix and level with wooden floats. Close the surfaces with a metal float. **Do not re-work. In hot or very dry conditions, cover the newly laid area with polythene sheeting or damp hessian after 2 hours for the 48 hours and therefore allow the surface to dry slowly and naturally. Do not force dry.**

With Ordinary Portland cement, light foot traffic may be allowed onto the new floor, after 24 hours and light wheeled traffic (barrows etc.) after 4 days; heavy vehicles must not be allowed on for 14 days (rapid setting cements give shorter waiting times).

Typical Mixes

1) Heavy Duty Grano

For Laying on old, worn floors or new sub-floors:
Clean, dry, granite chips 3-6 mm - 75kg
Clean, dry sharp flooring sand - 75g
Cement* - 50kg
Technocryl 2001 - 10 litres (12 to 25 mm) or
- 15 litres (6 to 12 mm)
Water (to semi-dry consistency)
Coverage - 6-7 m² at 12mm thickness

This screed is very-hardwearing, has excellent load bearing properties providing the sub-floor has adequate strength. The mix cannot be feathered - a smooth change of level may be obtained by channelling the sub-floor to a minimum depth of 10 mm where the new topping is to end, and laying the topping into this recess.

2) Topping and Patching Mix

For laying at an average thickness of 6 mm, on surfaces similar to those for the grano topping:
Clean, dry, sharp sand 0.5 to 1.5 mm - 100kg
Cement* - 50kg
Technocryl 2001 - 15 litres
Water (to semi-dry consistency)
Coverage - 9-10 m² at 6mm thickness

This screed is smoother than the grano, but is hard wearing and can withstand rubbed wheeled traffic. It is also suitable for levelling tamped concrete floors and retains strength down to 1.5mm thickness over raised portions of the sub-floor.

3) Levelling Screed or Underlay

For laying 6 - 12 mm thickness, onto an uneven floor prior to installation of decorative flooring (eg. parquet, tiles, vinyl, carpets).
Clean, dry, sharp flooring sand - 150 kg
Cement* - 50kg
Technocryl 2001 - 5 litres
Water (to semi-dry consistency)
Coverage - 6-7 m² at 12 m thickness

Water loss is normally complete after 1 week, and installation to the final flooring can then proceed without further delay.

4) Terrazzo

For laying at an average 12 mm thickness
Marble chips 6mm - 100 kg
Cement* - 50kg
Technocryl 2001 - 10 litres
Water - Approx. 6 litres

Only the second method of priming should be used; the condition of the sub-floor must therefore permit this procedure. Good adhesion is ensured and no bonding screed is needed. The mix is drier than conventional terrazzo but, because of its extra resilience, it can be laid easily in bays of 4.5 x 1.5 m without cracking or lifting. This compares favourably with the 1m bays necessary for normal terrazzo.

Curing is rapid, and grinding/polishing can take place 2-3 days. Grinding requires water and sand on the floor, with carborundum blocks fitted to the machine. Coarse carborundum is used at first, with progressively finer grades producing the final polish. Coves and other inaccessible areas are dry polished using hand-held equipment with flexible abrasive pads.

**For white or pale effects, use white cement. For coloured floors use e.g. Cementone No. 1 Colours at the dosage rate of 2½% - 10% per wt. of cement (trials should be carried out on site for the required colour. Cured mortar will provide the final colour). Use high Alumina Cement in aggressive environments, i.e. dairies, food factories and fertiliser stores.*

PRODUCT DATA

Polymer Type	Acrylic co-polymer dispersion
Solids Content	49-51%
Density	approx 1.05kg/litre
Particle Size	0.1 to 0.2 µ
pH	7.5-8.5
Minimum film forming temperature	Approx. 0°C
Film appearance	Clear and glossy
Appearance	Milky white liquid
Coverage	1:1 Technocryl 2001/Water @ 15 to 20m ² per litre of mixed primer 1:1:2 Technocryl 2001/water/dry mortar mix or cement @ 5 to 6 m ² per litre of mixed primer. Refer to typical flooring mixes for dosage/cover guidance
Storage	Store in dry place and protect from frost, high temperatures and direct sunlight
Shelf Life	6 months in original unopened container
Pack Size	25 and 200 litre drums
Thinning/Cleaning	Technocryl 2001 liquid is dilutable in water. Dried film may be softened using methylated spirit and may then be physically removed.
Safety	Not classified as hazardous under the CHIP regulations 1994. For further information on Technocryl 2001 our Material Safety Data Sheet should be consulted.
Availability	Technocryl 2001 is available to the professional floor layer, exclusively from the Wykamol Group.

TECHNICAL INFORMATION

The information contained in this data sheet is for professional operators and is compiled accordingly.

Further information and advice is freely available from our Technical advisors who will be pleased to assist with any enquiries.

The Company warrants this product to be of merchantable quality and fit for the purpose designed, providing that any instructions relating to use, handling and storage are duly observed. All transactions subject to our standard conditions of sale, copies available on request.



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