



QUALITOP MILLENIUM

Very heavy duty floor hardener.

LEED certified



PRODUCT DESCRIPTION

Qualitop Millenium is a synthetic dry shake hardener. Qualitop Millenium consists of very hard non metallic aggregates, cement and special additives.

Qualitop Millenium can be applied to freshly laid concrete as a dry powder or as a slurry.

Colour range

Refer to Rocland colour guide.

Benefits

- **High performance** wearing shield
- Excellent impact resistance and point load
- Dust proof
- Non-rusting – surface requires no special treatment

Uses

- Very heavy duty industrial floors
- Freight terminals
- Logistics platforms - VNA flat floors
- Railway workshops
- Aircraft hangars
- Heavy engineering works
- Military applications
- Power stations
- Waste and water treatment plants

COVERAGE

The floor hardener shall be **Qualitop Millenium** applied at a rate of:

- 3 to 7 kg/m² dry shaking
- 3 to 7 kg/m² mechanical spreader
- 12 kg/m² 'fresh on fresh' topping

The curing agent shall be **Roc Cure** applied at a rate of 100 g/m².

TECHNICAL SPECIFICATIONS

- **Qualitop millenium** conforms to the requirements of EN 13813 screed materials.
- **Compressive strength:** * ≥ 80 N/mm² - EN 13892-2
- **Flexural strength:** * ≥ 10 N/mm² - EN 13892-2
- **Abrasion resistance:** * $\leq 1,5$ cm³ / 50 cm² - EN 13892-3
- **Abrasion resistance:** * conforms to BS 8204 'AR0,5' class - EN 13892-4
- **Abrasion Taber resistance:** * 0,75 gr (H-22 / 1000 cycles / 1000 gr ASTM C-501)
- **LEED:** VOC emission 2gr/l - VOC limit is 100 g/l)

* physical data measured at special produced specimen

MAINTENANCE

In order to preserve the properties of the cementitious floor in the long term, we recommend a regular maintenance. Please ask for the copy of our Rocland maintenance guide for further information.

HEALTH AND SAFETY

As with all powder products the wearing of a dust mask and gloves is advised.

(See our Material Safety Data Sheet for full details).

METHOD STATEMENT

Concrete quality

New concrete should be formulated with a minimum cement content of 300 kg per m³ of concrete and with an aggregate suitable for the intended purpose. Plasticizers should be included to improve workability.

Concrete air entrained must be lower than 3%.

Qualitop Millenium should be applied onto the concrete as soon as it will support the weight of a man (the foot-print test). This will normally be after 4-12 hours depending on the weather conditions.

Preparation

Large areas of concrete should be laid using a laser screed. For smaller areas the use of a rake and straight edges will provide a suitable even surface.

Manufacturer:

RCR Production France, Z.A. Les Monts du Matin, F-26730 La Baume d'hostun



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Application of Qualitop Millenium

Qualitop Millenium is applied to new freshly laid concrete by dry shaking or as a 'fresh on fresh' topping.

• Manual sprinkling

- For optimum results sprinkling should take place in two stages when applied manually .

- For the first sprinkle coat **Qualitop Millenium** should be spread evenly on the surface at a rate of 2 to 4.5 Kg/m² (2/3 total dosage)

- Once this application of **Qualitop Millenium** has absorbed all of the moisture , it should be floated using hand trowels for edges and corners, and power trowels for the main surface.

- Immediately after the first power float is complete, the second manual application of **Qualitop Millenium** should be spread over the surface at a rate of 1 to 2.5 kg (1/3 *total dosage)

- After the second application of **Qualitop Millenium** has absorbed all the moisture , it should be floated using a hand trowels for edges and corners and power trowels for the main surface.

- A smooth, hard finish is then achieved by use of a power float equipped with finishing blades. For light colours stainless blades should be used.

• Mechanical spreader

- Mechanical spreading requires only a single pass

- using a mechanical spreader **Qualitop Millenium** should be spread evenly over a surface of 3 to 7 kg.

- After the second application of **Qualitop Millenium** has absorbed all the moisture , it should be floated using a hand trowels for edges and corners and power trowels for the main surface.

- A smooth, hard finish is then achieved by use of a power float equipped with finishing blades. For light colours stainless blades should be used.

• 'Fresh on fresh' topping

- **Qualitop Millenium** is mixed with water at a rate of 3 to 3.5 litres per 25 kg bag in a pan mixer or any suitable mortar mixer until a homogeneous slurry is obtained.

- The slurry is then poured onto the surface of the concrete at a minimum rate of 12 kg/m² and levelled to the required thickness using straight edges.

- The **Qualitop Millenium** should then be floated using hand trowels for edges and corners and power floats for the main surface.

- A smooth, hard finish is then obtained by use of a power float equipped with finishing blades.

Application of Roc Cure

• The curing agent **Roc Cure** should be applied immediately after the finishing operation is complete. It is applied using a low pressure spray apparatus evenly over the entire surface at a rate of

100 g/m².

• It is essential that the curing process be well advanced before the floor is put into service. The following delays must be observed:

pedestrian traffic	7 days
light traffic	14 days
full use (fork lifts etc)	28 days

PACKAGING

Qualitop Millenium is packed in 25 kg bags. When stored under cover in dry conditions the shelf life is 6 months. Once opened the contents of a bag must be used immediately.

A guide to the maintenance of Roc floors is available on request.

Note:

The screed properties under site conditions cannot always be directly comparable with the screed material properties obtained under laboratory conditions, due for instance to variations of mixing, compaction or curing.

Legal note:

Owing to the different materials, substrates and differing working conditions, no guarantee in terms of result or adhesion for whatever reason and/or legal nature can be assumed by RCR Production France. Please note, the documentation of this technical data sheet can vary depending of the respective country. Note the abroad relevant product data sheet. For the rest, the most recent general terms of business of RCR Production France can be requested from us or viewed, in their most recent version, at www.rocland.eu and printed out.

We reserve the right to make changes to the product specifications.

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CE Marking:

DIN EN 13813 "screed mortars, screed materials and screeds - properties and requirements" (Jan. 2003) specifies requirements of screed mortars which are used for floor constructions in interior spaces. Products which conform to the above-mentioned standard are provided with the CE marking.



FACTORY PRODUCTION CONTROL (FPC)

is accomplished by
an external
German notified body

Declared performance // essential characteristics (superstructures in accordance with techn. data sheets)	
Reaction to fire	A1fl
Release of corrosive substances	NPD
Water permeability	NPD
Steam permeability	NPD
Compressive strength	C 80
Flexural strength	F 10
Wear resistance	A 1,5 / AR 0,5
Insulation against noise	NPD
Noise absorption	NPD
Thermal resistance	NPD
Chemical resistance	NPD

NPD = no performance determined

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