



RapidShield™ 0007 Clear

Application

RapidShield™ 0007 Clear is a high gloss 100% solid, UV curing, permanent industrial floor coating intended for use on concrete floors (where floors are stated = concrete floors). The RapidShield™ product range is cured using proprietary Quaker UV curing units.

RapidShield™ 0007 Clear is formulated using only reactive 100% solids materials in order to comply with the European directive 2004/42/CE, which limits volatile solvent contents in paints and varnishes. It conforms to LEED Guidelines and is NSF Registered for Non-Food Compounds R2 Category.

Product Suitability

RapidShield™ 0007 Clear is used as both a sealer/primer coat on freshly prepared concrete and as a final top coat over top of itself or RapidShield™ Colours. RapidShield™ Colours are applied directly to RapidShield™ 0007 Clear (applied as a primer/sealer) for purposes such as demarcation lines, designation of safety areas, truck trafficways and walkways.

RapidShield™ 0007 Clear is then applied as a top coat over RapidShield™ Colours or RapidShield™ 0007 Clear, applied as a sealer/primer, in order to provide optimum cleaning and durability.

RapidShield™ 0007 Clear may also be used as a dust sealer coat (one coat only) on power float floors.

RapidShield™ 0007 Clear is designed to provide a light to medium duty, high gloss, easily cleaned surface in industrial environments. Tire marks left by fork lift truck traffic are easily removed. It is suitable for use in industrial workshops, production warehouses and processing areas.

Benefits

- VOC compliant (<50 g/l)
- Excellent cleaning
- Instant curing
- High gloss film
- Excellent wear resistance
- Ideal for low temperature applications

Property	Test Method	Typical Value
Typical Properties - Product as Received		
Appearance	GTM 2240	Clear amber liquid
Specific Gravity	GTM 1510	1.08 ± 0.02 kg/m ³ , 20°C
Viscosity (#2 Zahn Cup)	GTM 1626	30 ± 5 s, 25°C
VOC (theoretical)	Calculated	0 g/l
Solids	N/A	100% wt
Recommended Thickness	N/A	100 - 150 µm
Coverage	N/A	6.6 - 9.8 m ² /l
Typical properties - Cured film at 100 - 150 µm dry		
Appearance	GTM 2240	Clear film
MEK Resistance*	ASTM D 5402	>200 Double Rubs
Pencil Hardness	ASTM D 3363	>4H
Gloss (at 60° observation)	ASTM D 523 - 08	>80 Gloss Units
Intercoat Adhesion**	ISO 2409, ASTM D3359	100% Adhesion
Adhesion to Concrete (when used as primer)	EN 1542, ASTM D 4541-2	>4 N/mm ²
Permeability to Water Vapor	ISO 7783-1 & -2	0.03 g/cm ²
Pendulum Slip Resistance (dry)	BS 7976-1:2002	>55 PTV
Coefficient of Friction (for N)	ASTM D 1894-08, ASTM F 609-05, ASTM C 1028-07	>/=0.25
Abrasion Resistance (1000 cycles, C17, 1000 g)	ISO 5470-1	<75 mg wt. loss
Coefficient of Thermal Expansion	EN 1770, ASTM C 531	3 x 10 ⁻⁴ cm/cm °K ⁻¹

* Refer to our Chemical Resistance Sheet for additional information.

** on top of properly applied and cured RapidShield™ Colours, RapidShield™ 0008 HighBuild and RapidShield™ 0007 applied as a primer



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Slip Resistance

RapidShield™ 0007 Clear meets the requirements of OSHA for flat surfaces. To increase slip resistance, a fine-to-medium textured finish can be achieved by the use of specific fine aggregates. During the final top coat application and prior to UV curing, an aggregate can be scattered and back rolled into the wet surface thereby encapsulating the aggregate in the coating upon cure. The size and quantity of aggregate, as well as the top coat film build, will affect the non-slip properties of the final coating.

Limitations

The minimum floor application temperature for RapidShield™ 0007 Clear is -5°C and 3°C above dew point. Optimum application temperature is 20°C. Maximum relative humidity is 85%.

Where high impact and aggressive wear resistance is required, please consult your Quaker representative or local CFC (Certified Flooring Contractor).

RapidShield™ 0007 Clear should not be applied to new or wet concrete floors; floor humidity above 200m (CR1.5, 75RH) would not be suitable for the RapidShield™ product.

Check For Moisture: Concrete moisture testing must occur. Calcium chloride testing or in-situ relative humidity testing is strongly recommended. Readings must be below 13.5 N per 100 square meters during a 24 hour period for the calcium chloride test, or below 70% relative internal concrete humidity [not to exceed 2.0% Core Moisture (CM)]. Test methods can be purchased at www.astm.org, see ASTM F1869 or F2170, respectively or follow manufacturer's instructions.

Note: Although testing is critical, it is not a guarantee against future problems. This is especially true if there is no vapor barrier or the vapor barrier is not functioning properly and/or you suspect you may have concrete contamination from oils, chemical spills or excessive salts.

Please consult your Quaker representative or local CFC (Certified Flooring Contractor) when an application requires high impact and/or aggressive wear resistance.

General Instructions

The following directions and recommendations are intended to serve as a guide and may require modifications to meet local needs:

Thinning: Use as received.

Mixing: RapidShield™ 0007 Clear is a 100% solids product and is designed to be used as supplied. If the storage container has been left stationary for any length of time a light shaking of the container is recommended.

Materials: RapidShield™ 0007 Clear is primarily designed for coating of concrete floors. Please contact your Quaker representative or local CFC for advice on any other substrates.

Surface Preparation: It is essential that RapidShield™ 0007 Clear is applied to sound, clean and dry surfaces to ensure maximum adhesion.

RapidShield™ 0007 Clear is designed for use as a thin coat application, typically 75-100 µm per coat. Therefore thin coatings will reflect the surface texture of the substrate and as such high spots must be removed to maintain a uniform coating thickness prior to UV curing. The ideal substrate for application is a flat, lightly textured, clean concrete surface.

The concrete surface should be hard, sound and free from dust and other barrier materials such as paint, wax, grease, oil and similar contaminants prior to mechanical preparation. Contaminated surfaces should be mechanically prepared, either by grinding or enclosed dust free shot blasting equipment (or similar) and vacuumed clean prior to applying. Ideally a combination of enclosed blasting and spiral/multi-headed grinding would leave a flat clean surface.

Any joints or cracks in the concrete base should be repaired and cleaned prior to application.

Application: By roller or squeegee. Use with adequate ventilation. Avoid breathing mist or vapours. Consult Material Safety Data Sheet for handling and safety information.

Shelf Life: Shelf life is limited to one year in the original packaging and when stored under conditions described below.



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Curing Instructions

Only UV curing equipment authorized by Quaker Chemical Corporation and verified to be in proper operating condition may be used to cure RapidShield™ Products. Curing instructions and parameters are supplied during the (CFC) Certified Flooring Contractor Training Session. Failure to comply with any of these conditions may impact product performance.

Storage, Safety & Disposal

Quaker supplies this quality product in pails; other packaging can be made available by Quaker or by your local CFC upon request.

RapidShield™ 0007 Clear should be stored in dry conditions and protected from direct sunlight. Avoid temperatures below 0°C and above 35°C during storage. For the purposes of shipping, RapidShield™ 0007 Clear is resistant to temperatures down to -40°C.

Storage, Safety & Disposal Continued

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RapidShield™ 0007 Clear is unlikely to present any significant health or safety hazard when used as recommended by Quaker. Good standards of personal and industrial hygiene are to be maintained by the user (see Material Safety Data Sheet).

In order to protect the environment, the product should be safely disposed of by a licensed contractor. The packaging material should be handled by a recognized reconditioning firm.



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RapidShield™

www.rapidshield.com