



RapidShield™ Colours

Application

RapidShield™ Colours are 100% solid, UV curing, permanent industrial floor intermediate coatings intended for use on primed/sealed concrete floors (where floors are stated = concrete floors). The RapidShield™ product range is cured using proprietary Quaker UV curing units.

RapidShield™ Colours are 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. RapidShield™ Colours conforms to LEED Guidelines

Product Suitability

RapidShield™ Colours are applied directly to RapidShield™ 0007 Clear (applied as a primer/sealer) or to RapidShield™ 0008 High Build sealer for purposes such as demarcation lines, designation of safety areas, truck traffic ways and walkways. Multiple coats of RapidShield™ Colours may be used in order to obtain the desired opacity.

RapidShield™ 0007 Clear or RapidShield™ 1001 WB Matte is then applied as a top coat over RapidShield™ Colours in order to provide optimum cleaning and durability.

Benefits

- VOC compliant (<50 g/l)
- Instant curing
- Ideal for low temperature applications

Limitations

The minimum floor application temperature for RapidShield™ Colours is -5°C and 3°C above dew point. Optimum application temperature is 20°C. Maximum relative humidity is 85%. RapidShield™ Colours should only be applied to RapidShield™ 0007 Clear (applied as a primer/sealer), to RapidShield™ 0008 High Build sealer, or to a previous coat of RapidShield™ Colours.

The application thickness for RapidShield™ Colours is critical to their successful use. RapidShield™ Colours should be applied between 50-75 µm thick for a single coat. Multiple coats (cured using only an approved Quaker UV curing unit in between coats) may be applied in order to achieve the desired opacity.

RapidShield™ 0007 Clear or RapidShield™ 1001 WB Matte Topcoat must be used over top of the last coat of RapidShield™ Colours. Refer to the Application Sheet of RapidShield™ 0007 Clear for guidelines its application as a top coat. Where high impact and/or aggressive wear resistance are required, please consult your Quaker representative of local CFC (Certified Flooring Contractor).

RapidShield™ Colours 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.

Property	Test Method	Typical Value
Typical Properties - Product as Received		
Appearance	GTM 2240	Opaque, Colored
Specific Gravity	GTM 1510	0.98 +/- .02
Viscosity (#2 Zahn Cup)	GTM 1626	75 +/- 5 s @ 25°C
VOC	Calculated	<50 g/l
Solids	N/A	>99% wt.
Recommended Thickness	N/A	63 - 88 µm
Coverage	N/A	3.9 - 7.9 m²/l
Typical Properties - Cured Film at 75 µm		
Appearance	GTM 2240	70% Opaque, Colored
Intercoat Adhesion*	ISO 2409/ASTM D3359	100% Adhesion
Permeability to Water Vapor	ISO 7783-1 & -2	0.03 g/cm²
Coefficient of Thermal Expansion	EN 1770/ASTM C531	3 x 10 ⁻⁴ cm/cm °K ⁻¹

* on top of properly applied and cured RapidShield™ 0008 High Build or RapidShield™ 0007 applied as a primer



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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.

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™ Colours are 100% solids products and are designed to be used as supplied. When first opening RapidShield™ Colours there may be a light to moderately thick "crust" on the top. Using a power mixer, insure this crust is thoroughly mixed back into the paint so that there are no lumps present and the crust has been completely re-dispersed. Do not remove and discard this crust as it plays an important role in the performance of the product. Once the crust has been mixed back into the product, only light mixing will be needed. Once mixed the product can sit for more than 6 hours without use. If at anytime upon storage the material shows evidence of material float on top, remix as described above.

Materials: RapidShield™ Colours are 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 the primer/seal coat (RapidShield™ 0007 Clear or RapidShield™ 0008 High Build on which RapidShield™ Colours will be applied) is applied to sound, clean and dry surfaces to ensure maximum adhesion.

RapidShield™ 0007 Clear is designed for use as a thin coat primer/seal coat, typically 75-100 µm. RapidShield™ 0008 High Build is designed for use as an intermediate thick primer/seal coat up to 250 µm. Depending upon the roughness of the concrete substrate the coatings will reflect the surface texture of the substrate. If high spots are not removed prior to application and curing of the primer/sealer coat, the RapidShield™ Colours may "roll off" these peaks and not provide full opacity of the surface being covered. 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.

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.



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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™ Colours 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™ Colours is resistant to temperatures down to -40°C.

RapidShield™ Colours are 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 recognised reconditioning firm.

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