

DIAMOND DF2 FINE

Super-Durable Weather & Slip Resistant Colored Coating

Description

Diamond DF2 Fine is a two component (2K), 100% solids, sprayable, aliphatic polyaspartic polyurea. It exhibits class leading durability, color retention and UV stability. The use of polyaspartic technology has resulted in an odourless, solvent-free system which is easy to apply and produces a coating with outstanding physical and mechanical properties. The nature of the polymers used in Diamond DF2 Fine also imparts weathering properties vastly superior to those of conventional 2K polyurethane or epoxy systems which means that Diamond DF2 Fine performs at very thin film thicknesses.

Uses

Diamond DF2 Fine is a highly durable anti-slip system which provides long- lasting color demarcation and prolongs the effective life of the existing surface in highly trafficked areas. Diamond DF2 Fine is optimised for area marking or for producing linear markings to designate walkways, bays and off-limits areas.

Diamond DF2 Fine is suitable for use on asphalt, exterior concrete and on properly prepared metal. Diamond DF2 Fine can also be used on interior concrete, provided that the substrate has been prepared properly. It can be applied at thicknesses of 75-200um in a single pass or multiple passes on vertical surfaces.

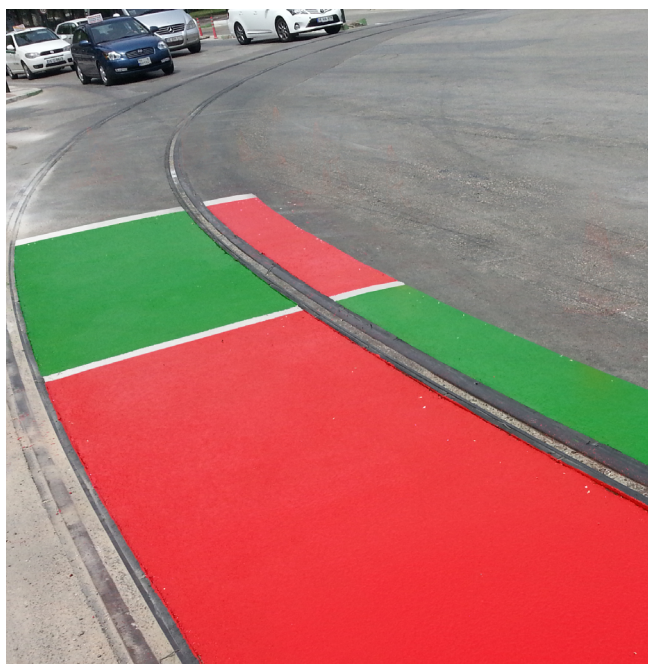
Anti-skid properties can be introduced to the system by back-rolling selected aggregates/anti-skid material while the coating is still tacky.

This gives the end user a wide variety of options. Diamond DF2 Fine contains no volatile organic compounds (VOCs) meaning that it can be used in sensitive areas where foods and other susceptible products are stored without the risk of contamination or taint.

Typical areas of use include warehouses, distribution centres, factories, retail and industrial parks, car parks, hospitals and defence sites, airports, ports, roads, highways, footways, cycleways, play areas and many more.

Benefits

- No volatile organic compounds (VOCs) – solvent free.
- No odor.
- Available in a range of bright, UV stable colors.
- UV stable - color will not fade and gloss will not be lost.
- Excellent weathering properties.
- Extremely hard wearing.
- Slip/skid resistant.
- Fuel, oil and solvent resistant.
- Stain resistant.
- Easy to apply.



- Choice of application methods: spray, roller or brush.
- Fast drying to a hard, gloss finish.
- Excellent adhesion to a wide variety of substrates.
- Excellent opacity.
- Excellent overcoating properties.

Technical

General

Specific Gravity of mixed system (using SG Cup)	1.45 - 1.65 depending on color
Solids volume	100%
Volatile organic content	zero
Mix ratio (Base:Activator)	3:1
Recommended wet/dry thickness	75-200µm per coat
Application rate @ 189 µm film thickness and a substrate texture depth of 0.66 - 0.80 mm	35-40 m ² per 10 kg pack



Gel time	40 - 50 mins
Touch dry time @ 20°C (approximate)	70 minutes
To recoat (minimum)	2 hours
To recoat (maximum)	6 hours
Open to foot traffic (approximate)	4 hours
Open to moderate/heavy traffic (approximate)	9 hours
To achieve full cure	15 hours

- Note that drying time is dependent on humidity, temperature and the thickness of the applied coating.
- Minimum recoat time will be reached when the film is not deformed by firm thumb pressure and no coating is visible on thumb.
- Maximum recoat time is identified when the thumb nail test no longer makes an indentation.
- If the maximum recoat time is exceeded then the surface should be lightly abraded before applying an additional coat. Consult us for further information on minimum and maximum recoat times of Diamond DF2 Fine.
- The performance of the coating will be affected by film builds above or below the recommended film thickness or spread rate.

Physical properties (using Diamond DF2 Fine White)

Tensile Strength & Elongation measurements carried out to ASTM Std No D882. Test samples were prepared using ASTM Std No D6287-09. All measurements were carried out using the Elcometer 106/6 Adhesion Tester.

	Days after application		
	2	5	7
Shore A Hardness	90	95	95
Tensile Strength	5.0N/mm ²	12.1N/mm ²	12.5N/mm ²
Elongation	183%	50%	29%

Pull-off adhesion tests carried out to ASTM D4541/ISO 4624.

Adhesion to concrete (unprimed/exterior)*	3.3 N/mm ²
Adhesion to asphalt*	1.75 N/mm ²
Adhesion to steel*	>3.50 N/mm ²

*In all cases, the substrate failed, not the coating.

Colors

All colors are manufacturer specific. References to standards are given on the basis of the closest available and are approximate only. Where color matching is of high importance, please contact us in advance. Diamond DF2 Fine color swatches are available upon request.

Color	APPROXIMATE COLOR REFERENCES		
	BS 381C Ref.	RAL	PMS
Bold Red	564	3020	186
Venetian Red	445	3009	180
Lemon Yellow	355	1023	116
Emerald Green	228	6024	347
Deep Chrome Green	267	6002	350
Strong Blue	107	5015	2945
Graphite Black	642	9011	
White	N/A	9016	White
Mid Grey		7040	

Other colors can be formulated to meet specific requirements. If you require corporate colors or need to match a specific color, please contact us to discuss your needs. A formulation charge and a minimum order quantity will apply.

Application

The separate detailed Method Statement must be followed.

Aftercare

There are no aftercare requirements other than cleaning. Diamond DF2 can be cleaned by pressure washing or by washing with a conventional detergent solution and a yard brush, rinsing with clean water afterwards.

Packaging & Storage

Diamond DF2 Fine is supplied in two component packs. The components for each pack are supplied in the correct proportions, ie Part A Base 3:1 Part B Activator by weight.

Store in dry, ventilated conditions. Shelf life is normally 12 months if these conditions are met.

Health & Safety

See separate Material Safety Data Sheet for details.

