3M™ Diamond Grade™ DG3 Reflective Sheeting

Fluorescent Reflective Sheeting for permanent and temporary traffic signs

Product Description

Introduced in 2006, 3M Diamond Grade DG³ Fluorescent reflective sheeting is a full cube microprismatic product that combines durable fluorescent properties with outstanding performance at every viewing angle and every viewing distance. Designed to enhance sign conspicuity during daylight hours, it is especially visible at dawn, dusk, during poor daylight and in adverse weather conditions.

Application/Suitability

Diamond Grade DG³ fluorescent sheeting for permanent signing is particularly suitable for school crossing patrol signs, and for use as a backing board highlighting chevrons and signs in areas with hazardous road layouts and where safety of vulnerable road users such as schoolchildren, cyclists and pedestrians is critical. All 3M Fluorescent DG³ sheetings comply with BS 8408. DG³ Fluorescent yellow meets the performance index requirement in BS 8442 for reflective self righting bollards. In addition, yellow fluorescent is authorised by the Highways Agency for use on trunk road signs conforming to diagrams in Schedule 7 part VIII to the Traffic Signs and General Directions 2002. Fluorescent

DG³ has European Technical Approval as a Class 3 Microprismatic Sheeting.

It is also used to provide superior railway bridge delineation to reduce bridge strikes.

Diamond Grade DG³ fluorescent sheeting for temporary signing is suitable for high impact, short life signs such as event or roadworks signing.

Effective Performance Life

Fluorescent Diamond Grade DG³ reflective sheeting for permanent signing, when used on vertically mounted traffic signs that have been made and maintained following 3M recommendations will provide a ten year effective performance life for fluorescence and brightness.

Fluorescent Diamond Grade DG³ reflective sheeting for temporary signing, when correctly applied to approved substrates and used following 3M recommended production storage and use instructions will provide a three year effective performance life for fluorescence and brightness.

Benefits

- Provides exceptional luminance performance even in areas of high ambient light and visual clutter and in complex driving conditions and disadvantaged sign positions.
- Innovative full cube corner technology giving outstanding performance at every angle and every viewing distance
- Optimum performance in daylight and darkness
- Proven speed and conflict reduction at sites where installed on sign backing boards
- Combines physical robustness with long lasting fluorescence
- Brighter signs assist disadvantaged drivers, such as the elderly and drivers of heavy goods vehicles
- Provides proven safety benefits

Product Construction / Specification

A wide angle retroreflective sheeting comprising full cube microprismatic optics and durable fluorescent pigments formed in a transparent resin with a smooth topcoat and an interlocking diamond seal pattern. It is pre-coated with a pressure sensitive adhesive, protected by a removable liner.

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Initial minimum coefficients of retroreflection shall not be less than the values as set out in the table below:

		Minimum Coefficient of retroreflection (cd/m²/lx)			
		Permanent			Temporary
Entrance Angle	Observation Angle	Fluorescent Yellow	Fluorescent Yellow Green	Fluorescent Orange	Fluorescent Yellow
-4°	20'	340	460	170	340
	0.5°	240	320	120	240
	1°	72	96	36	72
30°	20'	130	170	64	130
	0.5°	90	120	45	90
	1°	27	36	14	27
40°	20'	60	80	30	60
	0.5°	30	40	15	30
	1°	15	20	7	15

Colours

Permanent Fluorescent Diamond Grade DG³ reflective sheeting is available in the following colours: Fluorescent Yellow, Fluorescent Yellow Green Fluorescent Orange

Temporary Fluorescent Diamond Grade DG³ reflective sheeting is available in the following colours: Fluorescent Yellow

Availability

For full product information please refer to the website or Customer Service Centre.

Application Surface

Fluorescent Diamond Grade DG³ reflective sheeting is recommended for use on properly prepared flat Aluminium and British Steel HP200 substrates. For recommended substrate preparation please request Instruction Bulletin 1.7. Users are urged to carefully evaluate all other substrates for adhesion and sheeting durability. Sheeting failures caused by the substrate or improper surface preparation are not the responsibility of 3M.

Environmental/Energy Advantage

Product is constructed by lamination of layers with minimal solvent use or emissions. Long service life minimizes sign replacement costs. DG³ may also eliminate the need for external sign illumination

Product Information

For more detailed technical information please request the relevant product bulletin or download it from the website

For further information or samples, please contact: 3M Customer Service Centre on: 0161 237 6394 Or if within Republic of Ireland on: 01 280 3555



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