

# Declaration of Performance/ Leistungserklärung 3M Diamond Grade DG<sup>3</sup>

## *Construction Product Code / Bezeichnung des Bauproduktes*

### Microprismatic Retroreflective Sheeting

1. 3M Diamond Grade DG<sup>3</sup> Series 4000
2. 3M Diamond Grade DG<sup>3</sup> Series 4000 + 3M Electrocut Film Series 1170
3. 3M Diamond Grade DG<sup>3</sup> Series 4000 printed with 3M Process Colour Series 880 I or N
4. 3M Diamond Grade DG<sup>3</sup> Series 4000 printed with 3M Process Colour Series 4700
5. 3M Diamond Grade DG<sup>3</sup> Series 4000 + 3M Piezo Inkjet Ink Series 8800UV + 3M Electrocut Film 1170
6. 3M Diamond Grade DG<sup>3</sup> Series 4000 + 3M Piezo Inkjet Ink Series 8800UV + 3M Dew Resistant Overlay Film 1180
7. 3M Diamond Grade DG<sup>3</sup> Series 4000 + 3M Dew Resistant Overlay Film 1180
8. 3M Diamond Grade DG<sup>3</sup> Series 4000 + 3M Premium Protective Overlay Film 1160
9. 3M Diamond Grade DG<sup>3</sup> 4090 + 3M Electrocut Film 1176 with or without 3M Protective Overlay Film
10. 3M Diamond Grade DG<sup>3</sup> Series 4000 + 3M Piezo Inkjet Ink Series 8800UV + 3M Premium Protective Overlay Film 1180
11. 3M Diamond Grade DG<sup>3</sup> Series 4000 + 3M Electrocut Film Series 1170 + 3M Dew Resistant Overlay Film 1180

## *Intended Use / Verwendungszweck*

The construction product is used to manufacture sign faces for permanent traffic signs. The intended use includes, for example:

- Retro-reflective signs, retro-reflective and transilluminated signs (see also EN 12899-1)
- Variable message signs (see also EN 12966-1)

Das Bauprodukt wird für die Herstellung von Signalbildern von ortsfesten, vertikalen Verkehrszeichen verwendet. Der Verwendungszweck schließt z.B. ein:

- Retroreflektierende Verkehrszeichen, retroreflektierende und innenbeleuchtete Verkehrszeichen (siehe EN 12899-1)
- Wechselverkehrszeichen (siehe EN 12966-1)

## *Manufacturer / Hersteller*



3M Deutschland GmbH  
Carl-Schurz-Str.1  
D – 41453 Neuss

## *Assessment and Verification of Constancy of Performance / Bewertung und Überprüfung der Leistungsbeständigkeit*

### **System 1**

StrAus-Zert, notified body 0913, Steinhausstr. 79, D-58099 Hagen performs the continuous surveillance, assessment and evaluation of the factory production control under system 1 and issued the certificate of conformity 0913-CPD-2012 / 03.

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StrAus-Zert, notifizierte Stelle Nr. 0913, Steinhausstr. 79, D-58099 Hagen führt die laufende Überwachung, Beurteilung und Anerkennung der werkseigenen Produktionskontrolle nach System 1 durch und hat die Konformitätsbescheinigung 0913-CPD-2012 / 03 ausgestellt.

UBAtc, Rue du Lombard 42, B-1000 Brussels, performed the initial type testing and initial inspection of the factory and the FPC under system 1 and issued ETA 11/0521, ETA 11/0522 and ETA 13/0303.

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UBAtc, Rue du Lombard 42, B-1000 Brussels, führte die Erstprüfung und Erstinspektion des Werks und der werkseigenen Produktionskontrolle nach System 1 durch und hat ETA 11/0521, ETA 11/0522 und ETA 13/0303 ausgestellt.

**Declared Performance / erklärte Leistung (ETA 11/0521, 11/0522, 13/0303)**

**Safety in Use / Nutzungssicherheit**

Essential Characteristics / Wesentliche Merkmale	Performance / Leistung	Technical Specification / Technische Spezifikation
<b>Visibility Characteristics</b>		
Daytime Colour and Luminance Factor	Pass, Class B1 & B2	ETA 11/0521, ETA 11/0522, ETA 13/0303
Coefficient of Retroreflection (Construction Product 1 - 3 of above product code list)	Class R2 (Europe); R3A + R3B (Germany, Greece, Belgium)	
Coefficient of Retroreflection (Construction Product 4 - 11 of above product code list)	Class R3B (Germany)	
Rotational Symmetry	Pass	
Impact Resistance	Pass	
<b>Durability</b>		
Temperature Resistance (only combination 1-3 of above product code list)	Class 1 (80°C)	ETA 11/0521, ETA 11/0522, ETA 13/0303
Daytime Colour and Luminance Factor:	Pass, Class B1 & B2 (after exposure)	
Coefficient of Retroreflection	Pass (> 80% after exposure)	

The performance of the construction product identified above is in conformity with the declared performance. This declaration of performance is issued under the sole responsibility of the manufacturer. /

Die Leistung des oben genannten Bauproduktes entspricht der erklärten Leistung. Verantwortlich für die Erstellung dieser Leistungserklärung ist allein der Hersteller.

Neuss, august 2013



John Jackson  
3M Technical Director

## Amendment to the Declaration of Performance '3M Diamond Grade DG<sup>3</sup>'

This declaration covers the product 'Microprismatic retroreflective sheeting'. Sign plates or complete assemblies of fixed vertical road traffic signs according to EN 12899-1:2007 can be manufactured with the following products and product combinations, according to ETA 11/0521, ETA 11/0522 and ETA 13/0303.

<i>Components</i>	<i>Trade name</i>	<i>Colours/code</i>
Micro-prismatic retro-reflective sheeting	3M™ Diamond Grade™ DG <sup>3</sup> Reflective Sheeting Series 4000	White 4090 Red 4092 Yellow 4091 Green 4097 Blue 4095 Fluorescent Yellow 4081 Fluorescent Orange 4084 Fluorescent Yellow/Green 4083
Overlay film	3M™ Electrocut Film series 1170	Yellow 1171 Red 1172 Blue 1175 Green 1177 Brown 1179 Dark Green (Green 2) 1176 Colourless 1170
Process colour	3M™ Process Colour Series 880 I or N	Yellow 884I or N Red 882I or N Blue 883I or N Green 888I or N French Red 889I or N
Process colour	3M™ Process Colour Series 4700	Yellow 4704 Red 4702 Blue 4703 Green 4708
Process colour for digital printing	Piezo Inkjet Ink Series 8800 UV	Yellow Red Blue Green Brown
Protective Overlay films	3M™ Dew Resistant Overlay Film 1180	
	3M™ Premium Protective Overlay Film 1160 (anti-graffiti)	
	3M™ Protective Overlay Film 1150	