Attachment to EC Certificate of Conformity 0913 – CPD – 2009 / 035 (7 pages)

The above certified retroreflective sheeting ORALITE® 5810 High Intensity Grade to be used for fixed, vertical road traffic signs using glass bead technology is admitted for the following original dyed colours:

Colour	Name of the product	Visibility characteristics		Durability	
		Daylight chromaticity & luminance factor 4.1.1.3	Coefficient of retroreflection 4.1.1.4	Impact resistance 4.1.2.1	Resistance to weathering 4.1.1.5
White	ORALITE® 5810-010 High Intensity Grade	CR2	RA2	pass	pass
Yellow	ORALITE® 5810-020 High Intensity Grade	CR2	RA2	pass	pass
Red	ORALITE® 5810-030 High Intensity Grade	CR2	RA2	pass	pass
Blue	ORALITE® 5810-050 High Intensity Grade	CR2	RA2	pass	pass
Green	ORALITE® 5810-060 High Intensity Grade	CR2	RA2	pass	pass
Brown	ORALITE® 5810-080 High Intensity Grade	CR2	RA2	pass	pass

The above certified retroreflective sheeting ORALITE® 5810 High Intensity Grade to be used for fixed, vertical road traffic signs using glass bead technology is accepted to be coloured by the below listed materials:

Lettering Film:

Colour	Name of the product	Visibility characteristics		Durability	
		Daylight chromaticity & luminance factor 7.3.1.3	Coefficient of retroreflection 4.1.1.4	Impact resistance 4.1.2.1	Resistance to weathering 4.1.1.5
Black	ORALITE® 5081-070 Lettering Film	NR1	-	pass	pass

Coloured Laminates:

Colour	Name of the product	Visibility characteristics		Durability	
		Daylight chromaticity & luminance factor 4.1.1.3	Coefficient of retroreflection 4.1.1.4	Impact resistance 4.1.2.1	Resistance to weathering 4.1.1.5
Yellow	ORALITE® 5061-020 Transparent Film	CR2	RA2	pass	pass
Red	ORALITE® 5061-030 Transparent Film	CR2	RA2	pass	pass
Blue	ORALITE® 5061-050 Transparent Film	CR2	RA2	pass	pass
Green	ORALITE® 5061-060 Transparent Film	CR2	RA2	pass	pass
Brown	ORALITE® 5061-080 Transparent Film	CR2	RA2	pass	pass
Dark Green	ORALITE® 5061-625 Transparent Film	CR1	RA2	pass	pass

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Screenprinting Colours on white retroreflective sheeting:

Colour	Name of the product	Visibility characteristics		Durability	
		Daylight chromaticity & luminance factor 4.1.1.3	Coefficient of retroreflection 4.1.1.4	Impact resistance 4.1.2.1	Resistance to weathering 4.1.1.5
Yellow	ORALITE® 5018-020 Screen Printing Ink	CR2	RA2	pass	pass
Red	ORALITE® 5018-030 Screen Printing Ink	CR2	RA2	pass	pass
Blue	ORALITE® 5018-050 Screen Printing Ink	CR2	RA2	pass	pass
Green	ORALITE® 5018-060 Screen Printing Ink	CR2	RA2	pass	pass
Black	ORALITE® 5018-070 Screen Printing Ink	NR1	-	pass	pass

Screenprinting Colours on yellow retroreflective sheeting:

Colour	Name of the product	Visibility characteristics		Durability	
		Daylight chromaticity & luminance factor 4.1.1.3	Coefficient of retroreflection 4.1.1.4	Impact resistance 4.1.2.1	Resistance to weathering 4.1.1.5
Red	ORALITE® 5018-030 Screen Printing Ink	CR2	RA1	pass	pass
Black	ORALITE® 5018-070 Screen Printing Ink	NR1	-	pass	pass

Digital Printing Colours:

Digital Printing Colour ORALITE® 5019 UV Digital Printing Ink

The digital printing is processed on white retroreflective sheeting with the digital printing system AGFA ANAPURNA M2050 High-Speed-UV-Inkjet-System and is to be laminated with a transparent laminate.

Digital Printing with protective laminate ORALITE® 5061-000 Transparent Film

Colour on white sheeting	Name of the product ORALITE® 5810-010 High Intensity Grade and	Visibility characteristics		Durability	
		Daylight chromaticity & luminance factor 4.1.1.3	Coefficient of retroreflection 4.1.1.4	Impact resistance 4.1.2.1	Resistance to weathering 4.1.1.5
White	ORALITE® 5061-000 Transparent Film	CR2	RA2	pass	pass
Yellow	ORALITE® 5019-020 UV Digital Printing Ink and ORALITE® 5061-000 Transparent Film	CR2	RA2	pass	pass
Red	ORALITE® 5019-030 UV Digital Printing Ink and ORALITE® 5061-000 Transparent Film	CR2	RA2	pass	pass
Blue	ORALITE® 5019-050 UV Digital Printing Ink and ORALITE® 5061-000 Transparent Film	CR2	RA2	pass	pass
Green	ORALITE® 5019-060 UV Digital Printing Ink and ORALITE® 5061-000 Transparent Film	CR2	RA2	pass	pass
Brown	ORALITE® 5019-080 UV Digital Printing Ink and ORALITE® 5061-000 Transparent Film	CR2	RA2	pass	pass
Dark Green	ORALITE® 5019-625 UV Digital Printing Ink and ORALITE® 5061-000 Transparent Film	CR2	RA2	pass	pass
Grey	ORALITE® 5019-073 UV Digital Printing Ink and ORALITE® 5061-000 Transparent Film	CR2	RA2*	pass	pass

* Coefficient of retroreflection: Value for printed colours 70% of RA2.

Colour	Name of the product	Visibility characteristics		Durability	
		Daylight chromaticity & luminance factor 7.3.1.3	Coefficient of retroreflection 4.1.1.4	Impact resistance 4.1.2.1	Resistance to weathering 4.1.1.5
Black	ORALITE® 5019-070 UV Digital Printing Ink and ORALITE® 5061-000 Transparent Film	NR1	-	pass	pass

Digital Printing with protective laminate ORALITE® 5090 Anti-Dew Film

Colour on white sheeting	Name of the product ORALITE® 5810-010 High Intensity Grade and	Visibility characteristics		Durability	
		Daylight chromaticity & luminance factor 4.1.1.3	Coefficient of retroreflection 4.1.1.4	Impact resistance 4.1.2.1	Resistance to weathering 4.1.1.5
White	ORALITE® 5090 Anti-Dew Film	CR2	RA2	pass	pass
Yellow	ORALITE® 5019-020 UV Digital Printing Ink and ORALITE® 5090 Anti-Dew Film	CR2	RA2	pass	pass
Red	ORALITE® 5019-030 UV Digital Printing Ink and ORALITE® 5090 Anti-Dew Film	CR2	RA2	pass	pass
Blue	ORALITE® 5019-050 UV Digital Printing Ink and ORALITE® 5090 Anti-Dew Film	CR2	RA2*	pass	pass
Green	ORALITE® 5019-060 UV Digital Printing Ink and ORALITE® 5090 Anti-Dew Film	CR2	RA2*	pass	pass
Brown	ORALITE® 5019-080 UV Digital Printing Ink and ORALITE® 5090 Anti-Dew Film	CR2	RA2	pass	pass
Dark Green	ORALITE® 5019-625 UV Digital Printing Ink and ORALITE® 5090 Anti-Dew Film	CR2	RA2	pass	pass
Grey	ORALITE® 5019-073 UV Digital Printing Ink and ORALITE® 5090 Anti-Dew Film	CR2	RA2	pass	pass

* Coefficient of retroreflection: Value for printed colours 70% of RA2.

Colour	Name of the product	Visibility characteristics		Durability	
		Daylight chromaticity & luminance factor 7.3.1.3	Coefficient of retroreflection 4.1.1.4	Impact resistance 4.1.2.1	Resistance to weathering 4.1.1.5
Black	ORALITE® 5019-070 UV Digital Printing Ink and ORALITE® 5090 Anti-Dew Film	NR1	-	pass	pass

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Digital Printing with protective laminate ORALITE® 5095 Anti-Graffiti Film

Colour on white sheeting	Name of the product ORALITE® 5810-010 High Intensity Grade and	Visibility characteristics		Durability	
		Daylight chromaticity & luminance factor 4.1.1.3	Coefficient of retroreflection 4.1.1.4	Impact resistance 4.1.2.1	Resistance to weathering 4.1.1.5
Weiß	ORALITE® 5095 Anti-Graffiti Film	CR2	RA2	pass	pass
Gelb	ORALITE® 5019-020 UV Digital Printing Ink and ORALITE® 5095 Anti-Graffiti Film	CR2	RA2	pass	pass
Rot	ORALITE® 5019-030 UV Digital Printing Ink and ORALITE® 5095 Anti-Graffiti Film	CR2	RA2	pass	pass
Blau	ORALITE® 5019-050 UV Digital Printing Ink and ORALITE® 5095 Anti-Graffiti Film	CR2	RA2*	pass	pass
Grün	ORALITE® 5019-060 UV Digital Printing Ink and ORALITE® 5095 Anti-Graffiti Film	CR2	RA2*	pass	pass
Braun	ORALITE® 5019-080 UV Digital Printing Ink and ORALITE® 5095 Anti-Graffiti Film	CR2	RA2	pass	pass
Grau	ORALITE® 5019-073 UV Digital Printing Ink and ORALITE® 5095 Anti-Graffiti Film	CR2	RA2	pass	pass

* Coefficient of retroreflection: Value for printed colours 70% of RA2.

Colour	Name of the product	Visibility characteristics		Durability	
		Daylight chromaticity & luminance factor 7.3.1.3	Coefficient of retroreflection 4.1.1.4	Impact resistance 4.1.2.1	Resistance to weathering 4.1.1.5
Schwarz	ORALITE® 5019-070 UV Digital Printing Ink and ORALITE® 5095 Anti-Graffiti Film	NR1	-	pass	pass

If the colour Black is printed solely, this material combination is admitted to be used without the transparent laminate.

Colour	Name of the product	Visibility characteristics		Durability	
		Daylight chromaticity & luminance factor 7.3.1.3	Coefficient of retroreflection 4.1.1.4	Impact resistance 4.1.2.1	Resistance to weathering 4.1.1.5
Black	ORALITE® 5019-070 UV Digital Printing Ink	NR1	-	pass	pass

Digital Printing Colour ORALITE® 5019i UV Digital Printing Ink

The digital printing is processed on white retroreflective sheeting with the digital printing system AGFA ANAPURNA M2050 High-Speed-UV-Inkjet-System and is to be laminated with the transparent laminate ORALITE® 5061-000 Transparent Film.

Colour on white sheeting	Name of the product ORALITE® 5810-010 High Intensity Grade and	Visibility characteristics		Durability	
		Daylight chromaticity & luminance factor 4.1.1.3	Coefficient of retroreflection 4.1.1.4	Impact resistance 4.1.2.1	Resistance to weathering 4.1.1.5
White	ORALITE® 5061-000 Transparent Film	CR2	RA2	pass	pass
Yellow	ORALITE® 5019i-020 UV Digital Printing Ink and ORALITE® 5061-000 Transparent Film	CR2	RA2	pass	pass
Red	ORALITE® 5019i-030 UV Digital Printing Ink and ORALITE® 5061-000 Transparent Film	CR2	RA2	pass	pass
Blue	ORALITE® 5019i-050 UV Digital Printing Ink and ORALITE® 5061-000 Transparent Film	CR2	RA2	pass	pass
Green	ORALITE® 5019i-060 UV Digital Printing Ink and ORALITE® 5061-000 Transparent Film	CR2	RA2	pass	pass
Brown	ORALITE® 5019i-080 UV Digital Printing Ink and ORALITE® 5061-000 Transparent Film	CR2	RA2	pass	pass
Dark Green	ORALITE® 5019i-625 UV Digital Printing Ink and ORALITE® 5061-000 Transparent Film	CR2	RA2	pass	pass
Grey	ORALITE® 5019i-073 UV Digital Printing Ink and ORALITE® 5061-000 Transparent Film	CR2	RA2	pass	pass

Colour	Name of the product	Visibility characteristics		Durability	
		Daylight chromaticity & luminance factor 7.3.1.3	Coefficient of retroreflection 4.1.1.4	Impact resistance 4.1.2.1	Resistance to weathering 4.1.1.5
Black	ORALITE® 5019i-070 UV Digital Printing Ink and ORALITE® 5061-000 Transparent Film	NR1	-	pass	pass

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Clear overlay film with special function:

Clear overlay films with special function (anti-dew and anti-graffiti) are always admitted in combination with a dyed sheeting and a colouring process.

Anti-Dew:

The dyed sheeting and the combination with coloured laminates is accepted to be processed with the clear overlay film with anti-dew function ORALITE® 5090 Anti-Dew Film for the following colours.

Dyed Retroreflective Sheeting

Colour	Name of the product	Visibility characteristics		Durability	
		Daylight chromaticity & luminance factor 4.1.1.3	Coefficient of retroreflection 4.1.1.4	Impact resistance 4.1.2.1	Resistance to weathering 4.1.1.5
White	ORALITE® 5810-010 High Intensity Grade and ORALITE® 5090 Anti-Dew Film	CR2	RA2	pass	pass
Yellow	ORALITE® 5810-020 High Intensity Grade and ORALITE® 5090 Anti-Dew Film	CR2	RA2	pass	pass
Red	ORALITE® 5810-030 High Intensity Grade and ORALITE® 5090 Anti-Dew Film	CR2	RA2	pass	pass
Blue	ORALITE® 5810-050 High Intensity Grade and ORALITE® 5090 Anti-Dew Film	CR2	RA2	pass	pass

Dyed Retroreflective Sheeting ORALITE® 5810 High Intensity Grade with Coloured Laminate

Colour	Name of the product	Visibility characteristics		Durability	
		Daylight chromaticity & luminance factor 4.1.1.3	Coefficient of retroreflection 4.1.1.4	Impact resistance 4.1.2.1	Resistance to weathering 4.1.1.5
Yellow	ORALITE® 5061-020 Transparent Film und ORALITE® 5090 Anti-Dew Film	CR2	RA2	pass	pass
Red	ORALITE® 5061-030 Transparent Film und ORALITE® 5090 Anti-Dew Film	CR2	RA2	pass	pass
Blue	ORALITE® 5061-050 Transparent Film und ORALITE® 5090 Anti-Dew Film	CR2	RA2	pass	pass

Dyed Retroreflective Sheeting ORALITE® 5810 High Intensity Grade with Lettering-Film

Colour	Name of the product	Visibility characteristics		Durability	
		Daylight chromaticity & luminance factor 7.3.1.3	Coefficient of retroreflection 4.1.1.4	Impact resistance 4.1.2.1	Resistance to weathering 4.1.1.5
Black	ORALITE® 5081-070 Lettering Film und ORALITE® 5090 Anti-Dew Film	NR1	-	pass	pass

Anti-Graffiti:

The dyed sheeting and the combination with coloured laminates is accepted to be processed with the clear overlay film with anti-graffiti function ORALITE® 5090 5095 Anti-Graffiti Film for the following colours.

Dyed Retroreflective Sheeting

Colour	Name of the product	Visibility characteristics		Durability	
		Daylight chromaticity & luminance factor 4.1.1.3	Coefficient of retroreflection 4.1.1.4	Impact resistance 4.1.2.1	Resistance to weathering 4.1.1.5
White	ORALITE® 5810-010 High Intensity Grade and ORALITE® 5095 Anti-Graffiti Film	CR2	RA2	pass	pass
Yellow	ORALITE® 5810-020 High Intensity Grade and ORALITE® 5095 Anti-Graffiti Film	CR2	RA2	pass	pass
Red	ORALITE® 5810-030 High Intensity Grade and ORALITE® 5095 Anti-Graffiti Film	CR2	RA2	pass	pass
Blue	ORALITE® 5810-050 High Intensity Grade and ORALITE® 5095 Anti-Graffiti Film	CR2	RA2	pass	pass

Dyed Retroreflective Sheeting ORALITE® 5810 High Intensity Grade with Coloured Laminate

Colour	Name of the product	Visibility characteristics		Durability	
		Daylight chromaticity & luminance factor 4.1.1.3	Coefficient of retroreflection 4.1.1.4	Impact resistance 4.1.2.1	Resistance to weathering 4.1.1.5
Yellow	ORALITE® 5061-020 Transparent Film und ORALITE® 5095 Anti-Graffiti Film	CR2	RA2	pass	pass
Red	ORALITE® 5061-030 Transparent Film und ORALITE® 5095 Anti-Graffiti Film	CR2	RA2	pass	pass
Blue	ORALITE® 5061-050 Transparent Film und ORALITE® 5095 Anti-Graffiti Film	CR2	RA2	pass	pass

Dyed Retroreflective Sheeting ORALITE® 5810 High Intensity Grade with Lettering-Film

Colour	Name of the product	Visibility characteristics		Durability	
		Daylight chromaticity & luminance factor 7.3.1.3	Coefficient of retroreflection 4.1.1.4	Impact resistance 4.1.2.1	Resistance to weathering 4.1.1.5
Black	ORALITE® 5081-070 Lettering Film und ORALITE® 5095 Anti-Graffiti Film	NR1	-	pass	pass

The manufacturer of the fixed vertical road traffic sign is responsible for conformity with the mandated characteristics according to EN 12899-1 by using these materials.

Hagen, 23 February 2018

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