

**Attachment to EC Certificate of Conformity 0913 – CPD – 2009 / 001 (4 pages)**

The above certified retroreflective sheeting ORALITE® 5710 Engineer 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® 5710-010 Engineer Grade	CR2	RA1	pass	pass
Yellow	ORALITE® 5710-020 Engineer Grade	CR2	RA1	pass	pass
Red	ORALITE® 5710-030 Engineer Grade	CR2	RA1	pass	pass
Blue	ORALITE® 5710-050 Engineer Grade	CR2	RA1	pass	pass
Green	ORALITE® 5710-060 Engineer Grade	CR2	RA1	pass	pass
Orange	ORALITE® 5710-035 Engineer Grade	CR1	RA1	pass	pass
Brown	ORALITE® 5710-080 Engineer Grade	CR2	RA1	pass	pass

The above certified retroreflective sheeting ORALITE® 5710 Engineer 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® 5071-070 Lettering Film	NR1	-	pass	pass

**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	RA1	pass	pass
Red	ORALITE® 5018-030 Screen Printing Ink	CR2	RA1	pass	pass
Blue	ORALITE® 5018-050 Screen Printing Ink	CR2	RA1	pass	pass
Green	ORALITE® 5018-060 Screen Printing Ink	CR2	RA1	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 the transparent laminate ORALITE® 5062-000 Transparent Film.

### Digital Printing with protective laminate ORALITE® 5062-000 Transparent Film

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
on white sheeting	ORALITE® 5710-010 Engineer Grade and				
White	ORALITE® 5062-000 Transparent Film	CR2	RA1	pass	pass
Yellow	ORALITE® 5019-020 UV Digital Printing Ink and ORALITE® 5062-000 Transparent Film	CR2	RA1	pass	pass
Red	ORALITE® 5019-030 UV Digital Printing Ink and ORALITE® 5062-000 Transparent Film	CR2	RA1	pass	pass
Blue	ORALITE® 5019-050 UV Digital Printing Ink and ORALITE® 5062-000 Transparent Film	CR2	RA1	pass	pass
Green	ORALITE® 5019-060 UV Digital Printing Ink and ORALITE® 5062-000 Transparent Film	CR2	RA1	pass	pass
Grey	ORALITE® 5019-625 UV Digital Printing Ink and ORALITE® 5062-000 Transparent Film	CR2	RA1	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® 5019-070 UV Digital Printing Ink and ORALITE® 5062-000 Transparent 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 with protective laminate ORALITE® 5097-000 Astifol® Anti-Sticker Film

Colour on white sheeting	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® 5097-000 Astifol® Anti-Sticker Film	CR2	RA1	pass	pass
Yellow	ORALITE® 5019-020 UV Digital Printing Ink and ORALITE® 5097-000 Astifol® Anti-Sticker Film	CR2	RA1	pass	pass
Red	ORALITE® 5019-030 UV Digital Printing Ink and ORALITE® 5097-000 Astifol® Anti-Sticker Film	CR2	RA1	pass	pass
Blue	ORALITE® 5019-050 UV Digital Printing Ink and ORALITE® 5097-000 Astifol® Anti-Sticker Film	CR2	RA1	pass	pass
Green	ORALITE® 5019-060 UV Digital Printing Ink and ORALITE® 5097-000 Astifol® Anti-Sticker Film	CR2	RA1	pass	pass
Orange	ORALITE® 5019-035 UV Digital Printing Ink and ORALITE® 5097-000 Astifol® Anti-Sticker Film	CR2	RA1	pass	pass
Brown	ORALITE® 5019-080 UV Digital Printing Ink and ORALITE® 5097-000 Astifol® Anti-Sticker Film	CR2	RA1	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® 5019-070 UV Digital Printing Ink and ORALITE® 5097-000 Astifol® Anti-Sticker Film	NR1	-	pass	pass

## Digital Printing Colour ORALITE® 5019i UV Digital Printing Ink

Colour on white sheeting	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® 5062-000 Transparent Film	CR2	RA1	pass	pass
Yellow	ORALITE® 5019i-020 UV Digital Printing Ink and ORALITE® 5062-000 Transparent Film	CR2	RA1	pass	pass
Red	ORALITE® 5019i-030 UV Digital Printing Ink and ORALITE® 5062-000 Transparent Film	CR2	RA1	pass	pass
Blue	ORALITE® 5019i-050 UV Digital Printing Ink and ORALITE® 5062-000 Transparent Film	CR2	RA1	pass	pass
Green	ORALITE® 5019i-060 UV Digital Printing Ink and ORALITE® 5062-000 Transparent Film	CR2	RA1	pass	pass
Orange	ORALITE® 5019i-035 UV Digital Printing Ink and ORALITE® 5062-000 Transparent Film	CR1	RA1	pass	pass
Brown	ORALITE® 5019i-080 UV Digital Printing Ink and ORALITE® 5062-000 Transparent Film	CR2	RA1	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® 5062-000 Transparent Film	NR1	-	pass	pass

**Clear protective overlay film:**

Clear protective overlay films (Anti-Graffiti) are always admitted in combination with retroreflective sheeting and a colouring process.

**Anti-Graffiti:**

The original dyed retroreflective sheeting with the screen-printing ORALITE® 5018 is accepted to be laminated with the clear protective overlay film ORALITE® 5095 Anti-Graffiti Film for the following colours.

Original dyed retroreflective sheeting ORALITE® 5710 Engineer Grade with screen-printing ORALITE® 5018 5018

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 and ORALITE® 5095 Anti-Graffiti Film	CR2	RA1	erfüllt	erfüllt
Blue	ORALITE® 5018-050 Screen Printing Ink and ORALITE® 5095 Anti-Graffiti Film	CR2	RA1	erfüllt	erfüllt
Black	ORALITE® 5018-070 Screen Printing Ink and ORALITE® 5095 Anti-Graffiti Film	NR1	-	erfüllt	erfüllt

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, 30 April 2019



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