Prüf-, Überwachungs- und Zertifizierungs-gemeinschaft der Straßenausstatter e.V.

Notifiziert unter 0913 durch DIBt nach BauPVO

Attachment to EC Certificate of Conformity 0913 - CPD - 2012 / 07 (9 pages)

The descriptions in this attachment refer to the ETA (Approval)
ETA-12/0478, valid from 2013-06-27 to 2018-01-21
as well as ETA (Assessment)
ETA-16/0465 from 2016-07-18,
ETA-16/0466 from 2016-07-18.
ETA-16/0612 from 2016-11-16.

The above certified microprismatic retroreflective sheeting ORALITE® 5910 High Intensity Prismatic Grade to be used for fixed, vertical road traffic signs is admitted for the following original dyed colours:

Original dyed retroreflective sheeting:

Colour	Name of the product	Visibility characteristics		Durability	
		Daylight chromaticity & luminance factor ETA 12/0478 tab. 2	Coefficient of retroreflection ETA 12/0478 tab. 3	Impact resistance ETA 12/0478 tab. 5	Resistance to weathering ETA 12/0478 tab. 6 und 7
White	ORALITE® 5910-010 High Intensity Prismatic Grade	pass, B2	R2 Europe	pass	pass
Yellow	ORALITE® 5910-020 High Intensity Prismatic Grade	pass, B2	R2 Europe	pass	pass
Red	ORALITE® 5910-030 High Intensity Prismatic Grade	pass, B2	R2 Europe	pass	pass
Blue	ORALITE® 5910-050 High Intensity Prismatic Grade	pass, B2	R2 Europe	pass	pass
Green	ORALITE® 5910-060 High Intensity Prismatic Grade	pass, B2	R2 Europe	pass	pass
Brown	ORALITE® 5910-080 High Intensity Prismatic Grade	pass, B2	R2 Europe	pass	pass

The above certified microprismatic retroreflective sheeting ORALITE® 5910 High Intensity Prismatic Grade to be used for fixed, vertical road traffic signs is accepted to be coloured by the below listed materials:

Lettering Film:

Colour	Name of the product	Visibility characteristics		Durability	
		Daylight chromaticity & luminance factor EN 12899-1 7.3.1.3	Coefficient of retroreflection EN 12899-1 4.1.1.4	Impact resistance EN 12899-1 4.1.2.1	Resistance to weathering EN 12899-1 4.1.1.5
Black	ORALITE® 5081-070 Lettering Film	NR1	-	pass	pass

Fleyer Straße 204, D-58097 Hagen
info@strauszert.de
Tel +49 2331 377 95 93, Fax +49 2331 377 95 94

Screen Printing Colours:

Colour on white sheeting	Name of the product ORALITE® 5910-010 High Intensity Prismatic Grade and	Visibility characteristics		Durability	
		Daylight chromaticity & luminance factor ETA 12/0478 tab. 8	Coefficient of retroreflection ETA 12/0478 tab. 9	Impact resistance ETA 12/0478 tab. 11	Resistance to weathering ETA 12/0478 tab. 12 und 13
Yellow	ORALITE® 5018-020 Screen Printing Ink	pass, B2	R2 Europe	pass	pass
Red	ORALITE® 5018-030 Screen Printing Ink	pass, B2	R2 Europe	pass	pass
Blue	ORALITE® 5018-050 Screen Printing Ink	pass, B2	R2 Europe	pass	pass
Green	ORALITE® 5018-060 Screen Printing Ink	pass, B2	R2 Europe	pass	pass
Orange	ORALITE® 5018-035 Screen Printing Ink	pass, B2	R2 Europe	pass	pass

Colour	Name of the product	Visibility characteristics		Durability	
		Daylight chromaticity & luminance factor EN 12899-1 7.3.1.3	Coefficient of retroreflection EN 12899-1 4.1.1.4	Impact resistance EN 12899-1 4.1.2.1	Resistance to weathering EN 12899-1 4.1.1.5
Black	ORALITE® 5018-070 Screenprinting Ink	NR1	-	pass	pass

Coloured Laminates:

Colour on white sheeting	Name of the product ORALITE® 5910-010 High Intensity Prismatic Grade and	Visibility characteristics		Durability	
		Daylight chromaticity & luminance factor ETA 12/0478 tab. 14	Coefficient of retroreflection ETA 12/0478 tab. 15	Impact resistance ETA 12/0478 tab. 17	Resistance to weathering ETA 12/0478 tab. 18 und 19
Transpa-rent	ORALITE® 5061-000 Transparent Film	pass, B2	R2 Europe	pass	pass
Yellow	ORALITE® 5061-020 Transparent Film	pass, B2	R2 Europe	pass	pass
Red	ORALITE® 5061-030 Transparent Film	pass, B2	R2 Europe	pass	pass
Blue	ORALITE® 5061-050 Transparent Film	pass, B2	R2 Europe	pass	pass
Green	ORALITE® 5061-060 Transparent Film	pass, B2	R2 Europe	pass	pass
Orange	ORALITE® 5061-035 Transparent Film	pass, B2	R2 Europe	pass	pass
Brown	ORALITE® 5061-080 Transparent Film	pass, B2	R2 Europe	pass	pass

Colour on white sheeting	Name of the product ORALITE® 5910-010 High Intensity Prismatic Grade and	Visibility characteristics		Durability	
		Daylight chromaticity & luminance factor evaluation according to ETA 16/0465 annex A	Coefficient of retroreflection evaluation according to ETA 16/0465 annex A	Impact resistance evaluation according to EN 12899-1	Resistance to weathering evaluation according to ETA 16/0465 annex A
Darkgreen	ORALITE® 5061-625 Transparent Film	pass	pass	pass	pass

Digital Printing:

The digital printing is processed on white retroreflective sheeting with the digital printing systems ORALITE® UV Digital Traffic Sign Printer or AGFA ANAPURNA M2050 High-Speed-UV-Inkjet-System or AGFA ANAPURNA M2050i High-Speed-UV-Inkjet-System and is to be laminated with a transparent protective laminate.

ORALITE® 5019 UV Digital Printing Ink:

Transparent protective laminate ORALITE® 5061-000 Transparent Film:

Colour on white sheeting	Name of the product ORALITE® 5910-010 High Intensity Prismatic Grade and	Visibility characteristics		Durability	
		Daylight chromaticity & luminance factor ETA 12/0478 tab. 32	Coefficient of retroreflection ETA 12/0478 tab. 33	Impact resistance ETA 12/0478 tab. 35	Resistance to weathering ETA 12/0478 tab. 36 und 37
Yellow	ORALITE® 5019-020 UV Digital Printing Ink and ORALITE® 5061-000 Transparent Film	pass, B2	R2 Europe	pass	pass
Red	ORALITE® 5019-030 UV Digital Printing Ink and ORALITE® 5061-000 Transparent Film	pass, B2	R2 Europe	pass	pass
Blue	ORALITE® 5019-050 UV Digital Printing Ink and ORALITE® 5061-000 Transparent Film	pass, B2	R2 Europe	pass	pass
Green	ORALITE® 5019-060 UV Digital Printing Ink and ORALITE® 5061-000 Transparent Film	pass, B2	R2 Europe	pass	pass
Brown	ORALITE® 5019-080 UV Digital Printing Ink and ORALITE® 5061-000 Transparent Film	pass, B2	R2 Europe	pass	pass

Transparent protective laminate ORALITE® 5090-000 Anti-Dew Film:

Colour on white sheeting	Name of the product ORALITE® 5910-010 High Intensity Prismatic Grade and	Visibility characteristics		Durability	
		Daylight chromaticity & luminance factor evaluation according to ETA 16/0466 annex A	Coefficient of retroreflection evaluation according to ETA 16/0466 annex A	Impact resistance evaluation according to EN 12899-1	Resistance to weathering evaluation according to ETA 16/0466 annex A
Yellow	ORALITE® 5019-020 UV Digital Printing Ink and ORALITE® 5090-000 Anti-Dew Film	pass	pass	pass	pass
Red	ORALITE® 5019-030 UV Digital Printing Ink and ORALITE® 5090-000 Anti-Dew Film	pass	pass	pass	pass
Blue	ORALITE® 5019-050 UV Digital Printing Ink and ORALITE® 5090-000 Anti-Dew Film	pass	pass	pass	pass
Orange	ORALITE® 5019-035 UV Digital Printing Ink and ORALITE® 5090-000 Anti-Dew Film	pass	pass	pass	pass
Brown	ORALITE® 5019-080 UV Digital Printing Ink and ORALITE® 5090-000 Anti-Dew Film	pass	pass	pass	pass
Grey	ORALITE® 5019-073 UV Digital Printing Ink and ORALITE® 5090-000 Anti-Dew Film	pass	pass	pass	pass

Fleyer Straße 204, D-58097 Hagen
info@strauszert.de
Tel +49 2331 377 95 93, Fax +49 2331 377 95 94

Transparent protective laminate ORALITE® 5095-000 Anti-Graffiti Film:

Colour on white sheeting	Name of the product ORALITE® 5910-010 High Intensity Prismatic Grade and	Visibility characteristics		Durability	
		Daylight chromaticity & luminance factor evaluation according to ETA 16/0466 annex B	Coefficient of retroreflection evaluation according to ETA 16/0466 annex B	Impact resistance evaluation according to EN 12899-1	Resistance to weathering evaluation according to ETA 16/0466 annex B
Yellow	ORALITE® 5019-020 UV Digital Printing Ink and ORALITE® 5095-000 Anti-Graffiti Film	pass	pass	pass	pass
Red	ORALITE® 5019-030 UV Digital Printing Ink and ORALITE® 5095-000 Anti-Graffiti Film	pass	pass	pass	pass
Blue	ORALITE® 5019-050 UV Digital Printing Ink and ORALITE® 5095-000 Anti-Graffiti Film	pass	pass	pass	pass
Grün	ORALITE® 5019-060 UV Digital Printing Ink and ORALITE® 5095-000 Anti-Graffiti Film	pass	pass	pass	pass
Orange	ORALITE® 5019-035 UV Digital Printing Ink and ORALITE® 5095-000 Anti-Graffiti Film	pass	pass	pass	pass
Brown	ORALITE® 5019-080 UV Digital Printing Ink and ORALITE® 5095-000 Anti-Graffiti Film	pass	pass	pass	pass
Darkgreen	ORALITE® 5019-625 UV Digital Printing Ink and ORALITE® 5095-000 Anti-Graffiti Film	pass	pass	pass	pass
Grey	ORALITE® 5019-073 UV Digital Printing Ink and ORALITE® 5095-000 Anti-Graffiti Film	pass	pass	pass	pass

Digital Printing Black:

Colour	Name of the product	Visibility characteristics		Durability	
		Daylight chromaticity & luminance factor EN 12899-1 7.3.1.3	Coefficient of retroreflection EN 12899-1 4.1.1.4	Impact resistance EN 12899-1 4.1.2.1	Resistance to weathering EN 12899-1 4.1.1.5
Black	ORALITE® 5019-070 UV Digital Printing Ink and ORALITE® 5061-000 Transparent Film	NR1	-	pass	pass
Black	ORALITE® 5019-070 UV Digital Printing Ink and ORALITE® 5090-000 Anti-Dew Film	NR1	-	pass	pass
Black	ORALITE® 5019-070 UV Digital Printing Ink and ORALITE® 5095-000 Anti-Graffiti Film	NR1	-	pass	pass
Black	ORALITE® 5019-070 UV Digital Printing Ink *	NR1	-	pass	pass

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

ORALITE® 5019i UV Digital Printing Ink:

Transparent protective laminate ORALITE® 5061-000 Transparent Film:

Colour on white sheeting	Name of the product ORALITE® 5910-010 High Intensity Prismatic Grade and	Visibility characteristics		Durability	
		Daylight chromaticity & luminance factor evaluation according to ETA 16/0612 annex A	Coefficient of retroreflection evaluation according to ETA 16/0612 annex A	Impact resistance evaluation according to EN 12899-1	Resistance to weathering evaluation according to ETA 16/0612 annex A
Yellow	ORALITE® 5019i-020 UV Digital Printing Ink and ORALITE® 5061-000 Transparent Film	pass	pass	pass	pass
Red	ORALITE® 5019i-030 UV Digital Printing Ink and ORALITE® 5061-000 Transparent Film	pass	pass	pass	pass
Blue	ORALITE® 5019i-050 UV Digital Printing Ink and ORALITE® 5061-000 Transparent Film	pass	pass	pass	pass
Green	ORALITE® 5019i-060 UV Digital Printing Ink and ORALITE® 5061-000 Transparent Film	pass	pass	pass	pass
Orange	ORALITE® 5019i-035 UV Digital Printing Ink and ORALITE® 5061-000 Transparent Film	pass	pass	pass	pass
Brown	ORALITE® 5019i-080 UV Digital Printing Ink and ORALITE® 5061-000 Transparent Film	pass	pass	pass	pass
Darkgreen	ORALITE® 5019i-625 UV Digital Printing Ink and ORALITE® 5061-000 Transparent Film	pass	pass	pass	pass
Grey	ORALITE® 5019i-073 UV Digital Printing Ink and ORALITE® 5061-000 Transparent Film	pass	pass	pass	pass

Transparent protective laminate ORALITE® 5090-000 Anti-Dew Film:

Colour on white sheeting	Name of the product ORALITE® 5910-010 High Intensity Prismatic Grade and	Visibility characteristics		Durability	
		Daylight chromaticity & luminance factor evaluation according to ETA 16/0612 annex B	Coefficient of retroreflection evaluation according to ETA 16/0612 annex B	Impact resistance evaluation according to EN 12899-1	Resistance to weathering evaluation according to ETA 16/0612 annex B
Yellow	ORALITE® 5019i-020 UV Digital Printing Ink and ORALITE® 5090-000 Anti-Dew Film	pass	pass	pass	pass
Red	ORALITE® 5019i-030 UV Digital Printing Ink and ORALITE® 5090-000 Anti-Dew Film	pass	pass	pass	pass
Blue	ORALITE® 5019i-050 UV Digital Printing Ink and ORALITE® 5090-000 Anti-Dew Film	pass	pass	pass	pass
Green	ORALITE® 5019i-060 UV Digital Printing Ink and ORALITE® 5090-000 Anti-Dew Film	pass	pass	pass	pass
Orange	ORALITE® 5019i-035 UV Digital Printing Ink and ORALITE® 5090-000 Anti-Dew Film	pass	pass	pass	pass
Brown	ORALITE® 5019i-080 UV Digital Printing Ink and ORALITE® 5090-000 Anti-Dew Film	pass	pass	pass	pass
Darkgreen	ORALITE® 5019i-625 UV Digital Printing Ink and ORALITE® 5090-000 Anti-Dew Film	pass	pass	pass	pass
Grey	ORALITE® 5019i-073 UV Digital Printing Ink and ORALITE® 5090-000 Anti-Dew Film	pass	pass	pass	pass

Fleyer Straße 204, D-58097 Hagen
info@strauszert.de
Tel +49 2331 377 95 93, Fax +49 2331 377 95 94

Transparent protective laminate ORALITE® 5095-000 Anti-Graffiti Film:

Colour on white sheeting	Name of the product ORALITE® 5910-010 High Intensity Prismatic Grade and	Visibility characteristics		Durability	
		Daylight chromaticity & luminance factor evaluation according to ETA 16/0612 annex C	Coefficient of retroreflection evaluation according to ETA 16/0612 annex C	Impact resistance evaluation according to EN 12899-1	Resistance to weathering evaluation according to ETA 16/0612 annex C
Yellow	ORALITE® 5019i-020 UV Digital Printing Ink and ORALITE® 5095-000 Anti-Graffiti Film	pass	pass	pass	pass
Red	ORALITE® 5019i-030 UV Digital Printing Ink and ORALITE® 5095-000 Anti-Graffiti Film	pass	pass	pass	pass
Blue	ORALITE® 5019i-050 UV Digital Printing Ink and ORALITE® 5095-000 Anti-Graffiti Film	pass	pass	pass	pass
Grün	ORALITE® 5019i-060 UV Digital Printing Ink and ORALITE® 5095-000 Anti-Graffiti Film	pass	pass	pass	pass
Orange	ORALITE® 5019i-035 UV Digital Printing Ink and ORALITE® 5095-000 Anti-Graffiti Film	pass	pass	pass	pass
Brown	ORALITE® 5019i-080 UV Digital Printing Ink and ORALITE® 5095-000 Anti-Graffiti Film	pass	pass	pass	pass
Darkgreen	ORALITE® 5019i-625 UV Digital Printing Ink and ORALITE® 5095-000 Anti-Graffiti Film	pass	pass	pass	pass
Grey	ORALITE® 5019i-073 UV Digital Printing Ink and ORALITE® 5095-000 Anti-Graffiti Film	pass	pass	pass	pass

Digital Printing Black:

Colour	Name of the product	Visibility characteristics		Durability	
		Daylight chromaticity & luminance factor EN 12899-1 7.3.1.3	Coefficient of retroreflection EN 12899-1 4.1.1.4	Impact resistance EN 12899-1 4.1.2.1	Resistance to weathering EN 12899-1 4.1.1.5
Black	ORALITE® 5019i-070 UV Digital Printing Ink and ORALITE® 5061-000 Transparent Film	NR1	-	pass	pass
Black	ORALITE® 5019i-070 UV Digital Printing Ink and ORALITE® 5090-000 Anti-Dew Film	NR1	-	pass	pass
Black	ORALITE® 5019i-070 UV Digital Printing Ink and ORALITE® 5095-000 Anti-Graffiti Film	NR1	-	pass	pass

Clear protective overlay film:

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

Anti-Dew:

The original dyed retroreflective sheeting is accepted to be laminated with the clear protective overlay film ORALITE® 5090 Anti-Dew Film for the following colours.

Original dyed retroreflective-sheeting ORALITE® 5910 High Intensity Prismatic Grade

Colour	Name of the product	Visibility characteristics		Durability	
		Daylight chromaticity & luminance factor ETA 12/0478 tab. 20	Coefficient of retroreflection ETA 12/0478 tab. 21	Impact resistance ETA 12/0478 tab. 23	Resistance to weathering ETA 12/0478 tab. 24 und 25
White	ORALITE® 5910-010 High Intensity Prismatic Grade and ORALITE® 5090 Anti-Dew Film	pass, B2	R2 Europe	pass	pass
Yellow	ORALITE® 5910-020 High Intensity Prismatic Grade and ORALITE® 5090 Anti-Dew Film	pass, B2	R2 Europe	pass	pass
Red	ORALITE® 5910-030 High Intensity Prismatic Grade and ORALITE® 5090 Anti-Dew Film	pass, B2	R2 Europe	pass	pass
Blue	ORALITE® 5910-050 High Intensity Prismatic Grade and ORALITE® 5090 Anti-Dew Film	pass, B2	R2 Europe	pass	pass
Green	ORALITE® 5910-060 High Intensity Prismatic Grade and ORALITE® 5090 Anti-Dew Film	pass, B2	R2 Europe	pass	pass
Brown	ORALITE® 5910-080 High Intensity Prismatic Grade and ORALITE® 5090 Anti-Dew Film	pass, B2	R2 Europe	pass	pass

Fleyer Straße 204, D-58097 Hagen
info@strauszert.de
Tel +49 2331 377 95 93, Fax +49 2331 377 95 94

The original dyed white retroreflective sheeting is accepted to be laminated with the coloured transparent laminate ORALITE® 5061 Transparent Film and the clear protective overlay film ORALITE® 5090 Anti-Dew Film for the following colours.

Original dyed retroreflective-sheeting ORALITE® 5910 High Intensity Prismatic Grade and coloured transparent laminate ORALITE® 5061 Transparent Film

Colour on white sheeting	Name of the product ORALITE® 5910-010 High Intensity Prismatic Grade and	Visibility characteristics		Durability	
		Daylight chromaticity & luminance factor ETA 12/0478 tab. 38	Coefficient of retroreflection ETA 12/0478 tab. 39	Impact resistance ETA 12/0478 tab. 41	Resistance to weathering ETA 12/0478 tab. 42 und 43
Yellow	ORALITE® 5061-020 Transparent Film and ORALITE® 5090 Anti-Dew Film	pass, B2	R2 Europe	pass	pass
Red	ORALITE® 5061-030 Transparent Film and ORALITE® 5090 Anti-Dew Film	pass, B2	R2 Europe	pass	pass
Blue	ORALITE® 5061-050 Transparent Film and ORALITE® 5090 Anti-Dew Film	pass, B2	R2 Europe	pass	pass
Green	ORALITE® 5061-060 Transparent Film and ORALITE® 5090 Anti-Dew Film	pass, B2	R2 Europe	pass	pass

Original dyed retroreflective-sheeting ORALITE® 5910 High Intensity Prismatic Grade and Lettering-Film

Colour	Name of the product	Visibility characteristics		Durability	
		Daylight chromaticity & luminance factor EN 12899-1 7.3.1.3	Coefficient of retroreflection EN 12899-1 4.1.1.4	Impact resistance EN 12899-1 4.1.2.1	Resistance to weathering EN 12899-1 4.1.1.5
Black	ORALITE® 5081-070 Lettering Film and ORALITE® 5090 Anti-Dew Film	NR1	-	pass	pass

Fleyer Straße 204, D-58097 Hagen
info@strauszert.de
Tel +49 2331 377 95 93, Fax +49 2331 377 95 94

Anti-Graffiti:

The original dyed retroreflective sheeting 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® 5910 High Intensity Prismatic Grade

Colour	Name of the product	Visibility characteristics		Durability	
		Daylight chromaticity & luminance factor ETA 12/0478 tab. 26	Coefficient of retroreflection ETA 12/0478 tab. 27	Impact resistance ETA 12/0478 tab. 29	Resistance to weathering ETA 12/0478 tab. 30 und 31
White	ORALITE® 5910-010 High Intensity Prismatic Grade and ORALITE® 5095 Anti-Graffiti Film	pass, B2	R2 Europe	pass	pass
Yellow	ORALITE® 5910-020 High Intensity Prismatic Grade and ORALITE® 5095 Anti-Graffiti Film	pass, B2	R2 Europe	pass	pass
Red	ORALITE® 5910-030 High Intensity Prismatic Grade and ORALITE® 5095 Anti-Graffiti Film	pass, B2	R2 Europe	pass	pass
Blue	ORALITE® 5910-050 High Intensity Prismatic Grade and ORALITE® 5095 Anti-Graffiti Film	pass, B2	R2 Europe	pass	pass
Green	ORALITE® 5910-060 High Intensity Prismatic Grade and ORALITE® 5095 Anti-Graffiti Film	pass, B2	R2 Europe	pass	pass
Brown	ORALITE® 5910-080 High Intensity Prismatic Grade and ORALITE® 5095 Anti-Graffiti Film	pass, B2	R2 Europe	pass	pass

Original dyed retroreflective-sheeting ORALITE® 5910 High Intensity Prismatic Grade and Lettering-Film

Colour	Name of the product	Visibility characteristics		Durability	
		Daylight chromaticity & luminance factor EN 12899-1 7.3.1.3	Coefficient of retroreflection EN 12899-1 4.1.1.4	Impact resistance EN 12899-1 4.1.2.1	Resistance to weathering EN 12899-1 4.1.1.5
Black	ORALITE® 5081-070 Lettering Film and 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, 3 February 2017

Christian Bargen
Dipl.-Ing.
Leiter StrAus-Zert

Fleyer Straße 204, D-58097 Hagen
info@strauszert.de
Tel +49 2331 377 95 93, Fax +49 2331 377 95 94