

Attachment to EC Certificate of Conformity 0913 - CPD - 2013 / 05 (7 pages)

The descriptions in this attachment refer to the ETA (Approval)

ETA-13/0247, valid from 2013-05-17 to 2018-05-17,

ETA-13/0248, valid from 2013-05-17 to 2018-05-17,

ETA-13/0250, valid from 2013-05-17 to 2018-05-17,

as well as ETA (Assessment)

ETA-15/0103, from 2016-01-28,

ETA-15/0104, from 2016-01-28,

ETA-15/0105, from 2016-01-28,

ETA-15/0106, from 2016-01-28,

ETA-15/0107, from 2016-01-28 and

ETA-15/0108, from 2016-01-28.

The above certified microprismatic retroreflective sheeting ORALITE® 6910 Brilliant 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 13/0247 tab. 2	Coefficient of retroreflection ETA 13/0247 tab. 3 and 4	Impact resistance ETA 13/0247 tab. 6	Resistance to weathering ETA 13/0247 tab. 8 and 9
White	ORALITE® 6910-010 Brilliant Grade	pass, B2	R2 Europe, R3B Germany	pass	pass
Yellow	ORALITE® 6910-020 Brilliant Grade	pass, B2	R2 Europe, R3B Germany	pass	pass
Red	ORALITE® 65910-030 Brilliant Grade	pass, B2	R2 Europe, R3B Germany	pass	pass
Blue	ORALITE® 6910-050 Brilliant Grade	pass, B2	R2 Europe, R3B Germany	pass	pass
Green	ORALITE® 6910-060 Brilliant Grade	pass, B2	R2 Europe, R3B Germany	pass	pass
Brown	ORALITE® 6910-080 Brilliant Grade	pass, B2	R2 Europe	pass	pass

The above certified microprismatic retroreflective sheeting ORALITE® 6910 Brilliant 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

Screenprinting Colours:

Colour	Name of the product	Visibility characteristics		Durability	
		Daylight chromaticity & luminance factor ETA 13/0248 tab. 2	Coefficient of retroreflection ETA 13/0248 tab. 3 and 4	Impact resistance ETA 13/0248 tab. 6	Resistance to weathering ETA 13/0248 tab. 8 and 9
on white sheeting	ORALITE® 6910-010 Brilliant Grade and				
Yellow	ORALITE® 5018-020 Screen Printing Ink	pass, B2	R2 Europe, R3B Germany	pass	pass
Red	ORALITE® 5018-030 Screen Printing Ink	pass, B2	R2 Europe, R3B Germany	pass	pass
Blue	ORALITE® 5018-050 Screen Printing Ink	pass, B2	R2 Europe, R3B Germany	pass	pass
Green	ORALITE® 5018-060 Screen Printing Ink	pass, B2	R2 Europe, R3B Germany	pass	pass
Orange	ORALITE® 5018-035 Screen Printing Ink	pass, B2	R2 Europe, R3B Germany	pass	pass
Brown	ORALITE® 5018-080 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:

Original dyed retroreflective sheeting ORALITE® 6910 Brilliant Grade with ORALITE® 5061 Transparent Film (ETA-15/0105)

Colour	Name of the product	Visibility characteristics		Durability	
		Daylight chromaticity & luminance factor Evaluation according to EN 12899-1 class CR2	Coefficient of retroreflection Evaluation according to TLP VZ, Notification Number 2007/0661/D, tab. 14, class RA3	Impact resistance Evaluation according to EN 12899-1	Resistance to weathering Evaluation according to TLP VZ, Notification Number 2007/0661/D, tab. 11 and 17
on white sheeting	ORALITE® 6910-010 Brilliant Grade and				
Trans-parent	ORALITE® 5061-000 Transparent Film	pass	pass	pass	pass
Yellow	ORALITE® 5061-020 Transparent Film	pass	pass	pass	pass
Red	ORALITE® 5061-030 Transparent Film	pass	pass	pass	pass
Blue	ORALITE® 5061-050 Transparent Film	pass	pass	pass	pass
Green	ORALITE® 5061-060 Transparent Film	pass	pass	pass	pass
Brown	ORALITE® 5061-080 Transparent Film	pass	pass *	pass	pass *

* Evaluation of performance on 56 % of requirement of colour Blue.

Clear protective overlay film:

Clear protective overlay films (Anti-Dew or 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® 6910 Brilliant Grade with ORALITE® 5090 Anti-Dew Film (ETA-15/0103)

Colour	Name of the product	Visibility characteristics		Durability	
		Daylight chromaticity & luminance factor Evaluation according to EN 12899-1 class CR2	Coefficient of retroreflection Evaluation according to TLP VZ, Notification Number 2007/0661/D, tab. 14, class RA3	Impact resistance Evaluation according to EN 12899-1	Resistance to weathering Evaluation according to TLP VZ, Notification Number 2007/0661/D, tab. 11 and 17
White	ORALITE® 6910-010 Brilliant Grade and ORALITE® 5090 Anti-Dew Film	pass	pass	pass	pass * ²
Yellow	ORALITE® 6910-020 Brilliant Grade and ORALITE® 5090 Anti-Dew Film	pass	pass	pass	pass
Blue	ORALITE® 6910-050 Brilliant Grade and ORALITE® 5090 Anti-Dew Film	pass	pass	pass	pass
Green	ORALITE® 6910-060 Brilliant Grade and ORALITE® 5090 Anti-Dew Film	pass	pass	pass	pass
Brown	ORALITE® 6910-080 Brilliant Grade und ORALITE® 5090 Anti-Dew Film	pass	pass * ¹	pass	pass * ¹

*¹ Evaluation of performance on 56 % of requirement of colour Blue.

*² Evaluation of average value.

Original dyed retroreflective sheeting ORALITE® 6910 Brilliant 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

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® 6910 Brilliant Grade and coloured transparent laminate ORALITE® 5061 Transparent Film with ORALITE® 5090 Anti-Dew Film

Colour on white sheeting	Name of the product	Visibility characteristics		Durability	
		Daylight chromaticity & luminance factor ETA 13/0250 tab. 2	Coefficient of retroreflection ETA 13/0250 tab. 3 and 4	Impact resistance ETA 13/0250 tab. 6	Resistance to weathering ETA 13/0250 tab. 8 and 9
Yellow	ORALITE® 5061-020 Transparent Film and ORALITE® 5090 Anti-Dew Film	pass, B2	R2 Europe, R3B Germany	pass	pass
Red	ORALITE® 5061-030 Transparent Film and ORALITE® 5090 Anti-Dew Film	pass, B2	R2 Europe, R3B Germany	pass	pass
Blue	ORALITE® 5061-050 Transparent Film and ORALITE® 5090 Anti-Dew Film	pass, B2	R2 Europe, R3B Germany	pass	pass
Green	ORALITE® 5061-060 Transparent Film and ORALITE® 5090 Anti-Dew Film	pass, B2	R2 Europe, R3B Germany	pass	pass
Brown	ORALITE® 5061-080 Transparent Film and ORALITE® 5090 Anti-Dew Film	pass, B2	R2 Europe	pass	pass

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® 6910 Brilliant Grade with ORALITE® 5095 Anti-Graffiti Film (ETA-15/0104)

Colour	Name of the product	Visibility characteristics		Durability	
		Daylight chromaticity & luminance factor Evaluation according to EN 12899-1 class CR2	Coefficient of retroreflection Evaluation according to TLP VZ, Notification Number 2007/0661/D, tab. 14, class RA3	Impact resistance Evaluation according to EN 12899-1	Resistance to weathering Evaluation according to TLP VZ, Notification Number 2007/0661/D, tab. 11 and 17
White	ORALITE® 6910-010 Brilliant Grade and ORALITE® 5095 Anti-Graffiti Film	pass	pass	pass	pass ^{*2}
Yellow	ORALITE® 6910-020 Brilliant Grade and ORALITE® 5095 Anti-Graffiti Film	pass	pass	pass	pass
Red	ORALITE® 6910-030 Brilliant Grade and ORALITE® 5095 Anti-Graffiti Film	pass	pass	pass	pass
Blue	ORALITE® 6910-050 Brilliant Grade and ORALITE® 5095 Anti-Graffiti Film	pass	pass	pass	pass
Green	ORALITE® 6910-060 Brilliant Grade and ORALITE® 5095 Anti-Graffiti Film	pass	pass	pass	pass
Brown	ORALITE® 6910-080 Brilliant Grade and ORALITE® 5095 Anti-Graffiti Film	pass	pass ^{*1}	pass	pass ^{*1}

^{*1} Evaluation of performance on 56 % of requirement of colour Blue.

^{*2} Evaluation of average value.

Original dyed retroreflective-sheeting ORALITE® 6910 Brilliant Grade with Lettering-Film with ORALITE® 5095 Anti-Graffiti 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 und ORALITE® 5095 Anti-Graffiti Film	NR1	-	pass	pass

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® 5095 Anti-Graffiti Film for the following colours.

Original dyed retroreflective sheeting ORALITE® 6910 Brilliant Grade and coloured transparent laminate ORALITE® 5061 Transparent Film with ORALITE® 5095 Anti-Graffiti Film (ETA-15/0106)

Colour	Name of the product	Visibility characteristics		Durability	
		Daylight chromaticity & luminance factor Evaluation according to EN 12899-1 class CR2	Coefficient of retroreflection Evaluation according to TLP VZ, Notification Number 2007/0661/D, tab. 14, class RA3	Impact resistance Evaluation according to EN 12899-1	Resistance to weathering Evaluation according to TLP VZ, Notification Number 2007/0661/D, tab. 11 and 17
on white sheeting	ORALITE® 6910-010 Brilliant Grade with				
Yellow	ORALITE® 5061-020 Transparent Film and ORALITE® 5095 Anti-Graffiti Film	pass	pass	pass	pass
Red	ORALITE® 5061-030 Transparent Film and ORALITE® 5095 Anti-Graffiti Film	pass	pass	pass	pass * ²
Blue	ORALITE® 5061-050 Transparent Film and ORALITE® 5095 Anti-Graffiti Film	pass	pass	pass	pass
Green	ORALITE® 5061-060 Transparent Film and ORALITE® 5095 Anti-Graffiti Film	pass	pass	pass	pass
Brown	ORALITE® 5061-080 Transparent Film and ORALITE® 5095 Anti-Graffiti Film	pass	pass * ¹	pass	pass * ¹

*¹ Evaluation of performance on 56 % of requirement of colour Blue.

*² Evaluation of average value.

Digital Printing Colours:

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 protective laminate.

Protective laminate ORALITE® 5061-000 Transparent Film (ETA-15/0107)

Colour on white sheeting	Name of the product	Visibility characteristics		Durability	
		Daylight chromaticity & luminance factor Evaluation according to EN 12899-1 class CR2	Coefficient of retroreflection Evaluation according to TLP VZ, Notification Number 2007/0661/D, tab. 14, class RA3	Impact resistance Evaluation according to EN 12899-1	Resistance to weathering Evaluation according to TLP VZ, Notification Number 2007/0661/D, tab. 11 and 17
Yellow	ORALITE® 5019-020 UV Digital Printing Ink and ORALITE® 5061-000 Transparent Film	pass	pass * ¹	pass	pass
Red	ORALITE® 5019-030 UV Digital Printing Ink and ORALITE® 5061-000 Transparent Film	pass	pass * ¹	pass	pass
Blue	ORALITE® 5019-050 UV Digital Printing Ink and ORALITE® 5061-000 Transparent Film	pass	pass	pass	pass
Brown	ORALITE® 5019-080 UV Digital Printing Ink and ORALITE® 5061-000 Transparent Film	pass	pass * ²	pass	pass * ²

*¹ Evaluation of 70% value for process colours.

*² Evaluation of performance on 56 % of requirement of colour Blue.

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

Protective laminate ORALITE® 5090 Anti-Dew Film (ETA-15/0108)

Colour	Name of the product	Visibility characteristics		Durability	
		Daylight chromaticity & luminance factor Evaluation according to EN 12899-1 class CR2	Coefficient of retroreflection Evaluation according to TLP VZ, Notification Number 2007/0661/D, tab. 14, class RA3	Impact resistance Evaluation according to EN 12899-1	Resistance to weathering Evaluation according to TLP VZ, Notification Number 2007/0661/D, tab. 11 and 17
on white sheeting	ORALITE® 6910-010 Brilliant Grade with				
Yellow	ORALITE® 5019-020 UV Digital Printing Ink and ORALITE® 5090 Anti-Dew Film	pass	pass *1	pass	pass
Red	ORALITE® 5019-030 UV Digital Printing Ink and ORALITE® 5090 Anti-Dew Film	pass	pass *1	pass	pass
Blue	ORALITE® 5019-050 UV Digital Printing Ink and ORALITE® 5090 Anti-Dew Film	pass	pass	pass	pass
Brown	ORALITE® 5019-080 UV Digital Printing Ink and ORALITE® 5090 Anti-Dew Film	pass	pass *2	pass	pass *2

*1 Evaluation of 70% value for process colours.

*2 Evaluation of performance on 56 % of requirement of colour Blue.

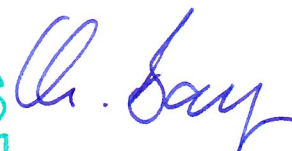
Colour	Name of the product	Visibility characteristics		Durability	
		Daylight chromaticity & luminance factor EN 12899-1 7.3.1.3	Coefficient of retroreflection EN 12899-1 4.1.1.4	Impact resistance EN 12899-1 4.1.2.1	Resistance to weathering EN 12899-1 4.1.1.5
Black	ORALITE® 5019-070 UV Digital Printing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

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

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	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, 18 March 2016



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