

CERTIFICATE OF CONSTANCY OF PERFORMANCE

Issued by DBI Certification, notified body No. 2531.

In compliance with *Regulation 305/2011/EU of the European Parliament and of the Council of 9 March 2011* (the Construction Products Regulation or CPR), this certificate applies to the construction product

Signboards

Scope: Sign plates with sign face materials applied for fixed vertical road traffic signs (ZA5)

The product fulfils the essential characteristic:

See Annex 1

Intended use: Permanent traffic signs

Placed on the market under the name or trade mark of:

**Infra Group Danmark ApS
Industrivej 17
5750 Ringe
Danmark**

and produced in the manufacturing plant:

CPA30005

This certificate attests that all provisions concerning the assessment and verification of constancy of performance described in Annex ZA of the standards

EN 12899-1:2007 : **Fixed, vertical road traffic signs-Part 1: Fixed signs**

under system 1 for the performance set out in this certificate are applied and that the performance of the construction product is assessed to remain constant.

The attached annexes form part of this certificate.

Date of issue: **2019-08-22**.

This certificate will remain valid as long as neither the harmonized standard, the construction product, the AVCP methods nor the manufacturing conditions in the plant are modified significantly unless suspended or withdrawn by the notified product certification body.

(This certificate supersedes the previous version of this certificate issued 2018-11-21)

This certificate was first issued 2018-02-21.



Per Lyster Andersen
Responsible for evaluation



Allan Laursen
Responsible for certification decision

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 **DANAK**

Prod. Reg. Nr. 7023

Annex 1

EXTENT

Description and classification:					
Resistance to horizontal loads		Value/description/class/reference			
Fixings		NPD			
Wind actions		NPD			
Temporary deflection-bending		NPD			
Dynamic load from snow clearance		NPD			
Point loads		NPD			
Permanent deflection		NPD			
Partial safety factor		NPD			
ORALITE® 5710 Engineering Grade:					
Retroreflective sheeting ORALITE® 5710 Engineering Grade with the following original dyed colours:					
Colour	Name of product	Visibility characteristics		Durability	
		Daylight Chromaticity & luminance factor 4.1.1.3. For black colours: 7.2.2.1.3	Coefficient of retroreflection 4.1.1.4	Impact resistance 4.1.2.	Resistance to weathering 4.1.1.5. For black colours: 7.2.2.1.4
White	ORALITE® 5710-010 Engineering Grade	CR2	RA1	pass	pass
Yellow	ORALITE® 5710-020 Engineering Grade	CR2	RA1	pass	pass
Red	ORALITE® 5710-030 Engineering Grade	CR2	RA1	pass	pass
Blue	ORALITE® 5710-050 Engineering Grade	CR2	RA1	pass	pass
Green	ORALITE® 5710-060 Engineering Grade	CR2	RA1	pass	pass
Orange	ORALITE® 5710-035 Engineering Grade	CR1	RA1	pass	pass
Brown	ORALITE® 5710-080 Engineering Grade	CR2	RA1	pass	pass
Retroreflective sheeting ORALITE® 5710 engineering Grade with the following Lettering Film:					
Black	ORALITE® 5071-070 Lettering Film	NR1	-	pass	pass
Retroreflective sheeting ORALITE® 5710 engineering Grade with the following screen printing colours on white retroreflective sheeting:					
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

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Retroreflective sheeting ORALITE® 5710 engineering Grade with the following screen printing colours on yellow retroreflective sheeting:					
Red	ORALITE® 5018-030 Screen Printing ink	CR2	RA1	pass	pass
Black	ORALITE® 5018-070 Screen Printing ink	NR1	-	pass	pass
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 the transparent laminate ORALITE® 5062-000 Transparent Film.					
Digital Printing Colour ORALITE® 5019 UV Digital Printing Ink					
On white sheeting	ORALITE® 5710-010 Engineering 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
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.					
Black	ORALITE® 5019-070 UV Digital Printing Ink	NR1	-	pass	pass
Digital printing colour ORALITE® 5019i UV Digital Printing Ink					
On white sheeting	ORALITE® 5710-010 Engineering Grade and				
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
Black	ORALITE® 5019i-070 UV Digital Printing Ink and ORALITE® 5062-000 Transparent Film	NR1	-	pass	pass

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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 Engineering Grade with screen-printing ORALITE® 5018					
Red	ORALITE® 5018-030 Screen Printing Ink and ORALITE® 5095 Anti-Graffiti Film	CR2	RA1	pass	pass
Blue	ORALITE® 5018-050 Screen Printing Ink and ORALITE® 5095 Anti-Graffiti Film	CR2	RA1	pass	pass
Black	ORALITE® 5018-070 Screen Printing Ink and ORALITE® 5095 Anti-Graffiti Film	NR1	-	pass	pass
ORALITE® 5810 High Intensity Grade:					
Retroreflective sheeting ORALITE® 5810 High Intensity Grade with the following original dyed colours:					
Colour	Name of product	Visibility characteristics		Durability	
		Daylight Chromaticity & luminance factor 4.1.1.3. For black colours: 7.2.2.1.3	Coefficient of retroreflection 4.1.1.4	Impact resistance 4.1.2.	Resistance to weathering 4.1.1.5. For black colours: 7.2.2.1.4
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
Retroreflective sheeting ORALITE® 5810 High Intensity Grade with the following Lettering Film:					
Black	ORALITE® 5081-070 Lettering Film	NR1	-	pass	pass
Retroreflective sheeting ORALITE® 5810 High Intensity Grade with the following Coloured Laminates:					
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
Retroreflective sheeting ORALITE® 5810 High Intensity Grade with the following Screen Printing Colours on white retroreflective sheeting:					
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

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Retroreflective sheeting ORALITE® 5810 High Intensity Grade with the following Screen Printing Colours on yellow retroreflective sheeting:					
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					
On white sheeting	ORALITE®5810-010 High Intensity Grade and				
WWhite	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					
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:					
On white sheeting	ORALITE®5810-010 High Intensity Grade and				
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					
Black	ORALITE® 5019-070 UV Digital Printing Ink and ORALITE® 5090 Anti-Dew Film	NR1	-	pass	pass

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DBI Certification A/S

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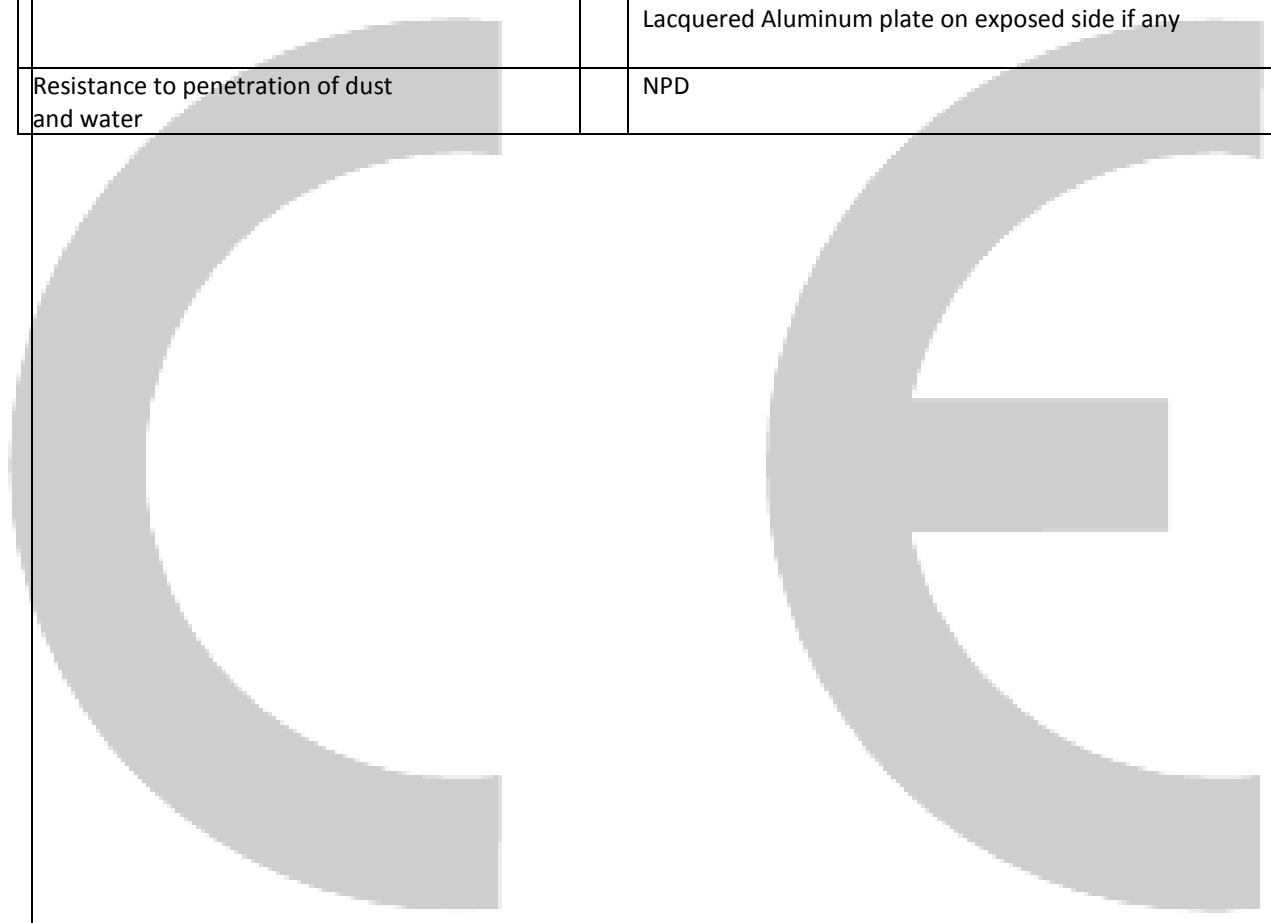
Digital Printing with protective laminate ORALITE® 5095 Anti-Graffiti Film:					
On white sheeting	ORALITE®5810-010 High Intensity Grade and				
White	ORALITE® 5095 Anti-Graffiti Film	CR2	RA2	pass	pass
Yellow	ORALITE® 5019-020 UV Digital Printing Ink and ORALITE® 5095 Anti-Graffiti Film	CR2	RA2	pass	pass
Red	ORALITE® 5019-030 UV Digital Printing Ink and ORALITE® 5095 Anti-Graffiti Film	CR2	RA2	pass	pass
Blue	ORALITE® 5019-050 UV Digital Printing Ink and ORALITE® 5095 Anti-Graffiti Film	CR2	RA2*	pass	pass
Green	ORALITE® 5019-060 UV Digital Printing Ink and ORALITE® 5095 Anti-Graffiti Film	CR2	RA2*	pass	pass
Brown	ORALITE® 5019-080 UV Digital Printing Ink and ORALITE® 5095 Anti-Graffiti Film	CR2	RA2	pass	pass
Grey	ORALITE® 5019-073 UV Digital Printing Ink and ORALITE® 5095 Anti-Graffiti Film	CR2	RA2	pass	pass
*Coefficient of retroreflektion: Value for printed colours 70% of RA2					
Black	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					
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					
On white sheeting	ORALITE® 5810-010 High Intensity Grade and				
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
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 anti-dew function ORALITE® 5090 Anti-Dew film for the following colours:					
Dyed Retroreflective Sheeting:					
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:					
Yellow	ORALITE® 5061-020 Transparent Film and ORALITE® 5090 Anti-Dew film	CR2	RA2	pass	pass
Red	ORALITE® 5061-030 Transparent Film and ORALITE® 5090 Anti-Dew film	CR2	RA2	pass	pass
Blue	ORALITE® 5061-050 Transparent Film and ORALITE® 5090 Anti-Dew film	CR2	RA2	pass	pass
Dyed Retroreflective Sheeting ORALITE® 5810 High Intensity Grade with Lettering film:					
Black	ORALITE® 5081-070 Lettering Film and 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® 5095 Anti Graffiti Film for the following colours.					
Dyed Retroreflective Sheeting:					
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:					
Yellow	ORALITE® 5061-020 Transparent Film and ORALITE® 5095 Anti-Graffiti Film	CR2	RA2	pass	pass
Red	ORALITE® 5061-030 Transparent Film and ORALITE® 5095 Anti-Graffiti Film	CR2	RA2	pass	pass
Blue	ORALITE® 5061-050 Transparent Film and ORALITE® 5095 Anti-Graffiti Film	CR2	RA2	pass	pass
Dyed Retroreflective Sheeting ORALITE® 5810 High Intensity Grade with Lettering Film:					
Black	ORALITE® 5081-070 Lettering Film and ORALITE® 5095 Anti-Graffiti Film	NR1	-	pass	pass

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External illumination:	Value/description/ class/reference
Mean illuminance	NPD
Uniformity of illuminance	NPD
Corrosion resistance	Value/description/ class/reference
Aluminum plate	2 mm aluminum plate Minimum $R_{p0,2} \geq 180$ MPa SP1 Lacquered Aluminum plate on exposed side if any
Resistance to penetration of dust and water	NPD



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Annex 2

TECHNICAL BASIS

Title	Date
Retroreflective Sheetings 5710 Engineering grade: 0913-CPD-2009/001 Annex	2009-03-17 2018-02-23
Retroreflective Sheeting Oralite 5810 High Intensity grade: 0913-CPD-2009/035 Annex	2012-06-27 2018-02-23

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