



**Declaration of Performance
Nr. 6710.001.20220208**



according to:

COMMISSION DELEGATED REGULATION (EU) No 574/2014 of 21 February 2014 amending Annex III to Regulation (EU) No 305/2011 of the European Parliament and of the Council on the model to be used for drawing up a declaration of performance on construction products

1. Unique identification code of the product-type:

ORALITE 6710 Engineer Prismatic Grade (white, yellow, blue, green, orange, brown)

ORALITE 6710 Engineer Prismatic Grade + 5081-070 lettering film (black)

ORALITE 6710 Engineer Prismatic Grade + 5018 Screen printing ink (yellow, red, blue, green, black)

ORALITE 6710 Engineer Prismatic Grade + 5062 transparent film (white)

ORALITE 6710 Engineer Prismatic Grade + 5019 UV digital printing ink (all colours) for use with UV Digital Traffic Sign Printer + 5062 transparent film

ORALITE 6710 Engineer Prismatic Grade + 5019i UV digital printing ink (all colours) for use with UV Digital Traffic Sign Printer + 5062 Transparent Film

2. Intended use/es:

Retroreflective sheeting for use in the manufacture of traffic signs and traffic control equipment

Retroreflective sign face material based on micro prismatic technology for the manufacturing of fixed vertical road traffic signs

3. Manufacturer:

Orafol Europe GmbH
Orafolstrasse 1
16515 Oranienburg

Telephone: +49 3301 864 - 0
E-Mail: info@orafol.de
Internet: www.orafol.dcom

4. Authorised representative – *not relevant*

5. System/s of AVCP: 1

6 a) Harmonised standard: - *not applicable*

Notified body/ies: - *not applicable*



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6 b) European Assessment Document:

Number	Date of issue
EAD 12001-01-0106	September 2016

European Technical Assessment:

Number	Date of issue
ETA-16/0579	11.09.2017
ETA 16/0580	11.09.2017
ETA 16/0581	20.10.2016

Technical Assessment Body:

Technický a skúšobný ústav stavebný, n. o.
Building Testing and Research Institute
Studená 3, 821 04 Bratislava, Slovak Republic

Notified body/ies:

Id. number: **0913**
Name: **StrAus-Zert**; Fleyer Straße 204; 58097 Hagen
Certifikate Nr.:0913 – CPR – 2016 / 011

7. Declared performance/s:

Main features	Description	Performance
Daylight chromaticity and luminance factors	EN12899-1 4.1.1.3 (Table 2)	CR 2 Attachment 1 Table 1
Coefficient of retroreflection	EN12899-1 4.1.1.4 (Table 3)	RA 1 Attachment 1 Table 2
Symmetry of retroreflection	< 2,5 : 1	Attachment 2
Durability		
Impact resistance	EN12899-1 4.1.2.1	Fulfilled Attachment 2
Resistance to weathering (artificial weathering / three years natural weathering)	EN12899-1 4.1.1.5	CR 1 Attachment 3 Table 3 Table 4



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8. Appropriate Technical Documentation and/or
Specific Technical Documentation:

Posted on Webpage:

<https://www.orafol.com>

The performance of the product identified above is in conformity with the set of declared performance/s. This declaration of performance is issued, in accordance with Regulation (EU) No 305/2011, under the sole responsibility of the manufacturer identified above.

Signed for and on behalf of the manufacturer by:

i.A. Dipl.-Ing. Jürgen Ewald Global Regulatory Affairs Manager

[name and function]

Oranienburg, 08.02.2022

[date and place of issue]

i.A.

[signature]



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Anlage 1

Table 1: Specific Coefficient of Retroreflection R_A (Unit: $\text{cd} \cdot \text{m}^{-2} \cdot \text{lx}^{-1}$) for traffic signs in new condition: Class RA2 according to DIN EN 12899-1

Geometry		Colour							
α	β_1 ($\beta_2 = 0$)	White	Yellow	Red	Green	Blue	Brown	Orange	Grey
0,2°	+ 5°	70	50	14,5	9	4	1	25	42
	+ 30°	30	22	6	3,5	1,7	0,3 ¹⁾	10	18
	+ 40°	10	7	2	1,5	0,5	#	2,2	6
0,33°	+ 5°	50	35	10	7	2	0,6	20	30
	+ 30°	24	16	4	3	1	0,2 ¹⁾	8	14,4
	+ 40°	9	6	1,8	1,2	#	#	2,2	5,4
2°	+ 5°	5	3	1	0,5	#	#	1,2	3
	+ 30°	2,5	1,5	0,5	0,3 ¹⁾	#	#	0,5	1,5
	+ 40°	1,5	1	0,5	0,2 ¹⁾	#	#	#	0,9

Indicates "Value greater than zero but not significant or applicable"

¹⁾ Values less than 0,5 are not evaluated

Table 2: Daylight chromaticity coordinates and luminance factors for traffic signs in new condition: Class CR 2 according to DIN EN 12899-1

Colour	Chromaticity Coordinates								Luminance Factor β
	1		2		3		4		
	x	y	x	y	x	y	x	y	
White	0,305	0,315	0,335	0,345	0,325	0,355	0,295	0,325	> 0,35
Yellow	0,494	0,505	0,470	0,480	0,513	0,437	0,545	0,454	> 0,27
Red	0,735	0,265	0,700	0,250	0,610	0,340	0,660	0,340	> 0,05
Green	0,110	0,415	0,170	0,415	0,170	0,500	0,110	0,500	> 0,04
Blue	0,130	0,090	0,160	0,090	0,160	0,140	0,130	0,140	> 0,01
Brown	0,455	0,397	0,523	0,429	0,479	0,373	0,558	0,394	$0,03 \leq \beta \leq 0,09$
Orange	0,610	0,390	0,535	0,375	0,506	0,404	0,570	0,429	> 0,17
Grey	0,305	0,315	0,335	0,345	0,325	0,355	0,295	0,325	$0,11 \leq \beta \leq 0,18$



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Attachment 2

Symmetry of retroreflection

The ratio of the maximum and minimum specific reflection values when rotating by ε with discrete steps, considering a preferred direction, is not greater than 2.5: 1.

Attachment 3

Impact resistance: The requirement for impact resistance depends on DIN EN 12899-1. Outside a circle with a radius of 6 mm from the center of the impact circle, no cracks or delamination from any substrate.

Attachment 4

Table 3: Specific Coefficient of Retroreflection R_A (Unit: $\text{cd} \cdot \text{m}^{-2} \cdot \text{lx}^{-1}$) for traffic signs in after weathering: Class RA2 according to DIN EN 12899-1

Geometry		Colour							
α	β_1 ($\beta_2 = 0$)	White	Yellow	Red	Green	Blue	Brown	Orange	Grey
0,33°	+ 5°	40	28	8	5,6	1,6	0,48	16	24
0,33°	+ 30°	19,2	12,8	3,2	2,4	0,8	0,16	6,4	11,5

Indicates "Value greater than zero but not significant or applicable"

Table 4: Daylight chromaticity coordinates and luminance factors for traffic signs after weathering: Class CR 1 according to DIN EN 12899-1

Colour	Chromaticity Coordinates								Luminance Factor β
	1		2		3		4		
	x	y	x	y	x	y	x	y	
White	0,355	0,355	0,305	0,305	0,285	0,325	0,335	0,375	> 0,35
Yellow	0,545	0,454	0,487	0,423	0,427	0,483	0,465	0,534	> 0,27
Red	0,735	0,265	0,674	0,236	0,569	0,341	0,655	0,345	> 0,05
Green	0,007	0,703	0,248	0,409	0,177	0,362	0,026	0,399	> 0,04
Blue	0,078	0,171	0,150	0,220	0,210	0,160	0,137	0,038	> 0,01
Brown	0,455	0,397	0,523	0,429	0,479	0,373	0,558	0,394	$0,03 \leq \beta \leq 0,09$
Orange	0,610	0,390	0,535	0,375	0,506	0,404	0,570	0,429	> 0,17
Grey	0,350	0,360	0,300	0,310	0,285	0,325	0,335	0,375	$0,11 \leq \beta \leq 0,18$