Declaration of Performance No. 6910.001.20220208

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 6910 Brilliant Grade (white, yellow, red, blue, green, brown)

ORALITE 6910 Brilliant Grade + 5081-070 lettering film (black)

ORALITE 6910 Brilliant Grade + 5090 anti-dew film (white, yellow, red, blue, green, brown)

ORALITE 6910 Brilliant Grade + 5081-070 lettering film (black) + 5090 anti-dew Film

ORALITE 6910 Brilliant Grade + 5095 anti-graffiti film (white, yellow, red, blue, green, brown)

ORALITE 6910 Brilliant Grade + 5081-070 lettering film (black) + 5095 anti-graffiti film

ORALITE 6910 Brilliant Grade + 5018 Screen printing ink (all colours)

ORALITE 6910 Brilliant Grade + 5061 coloured film (all colours + white)

ORALITE 6910 Brilliant Grade + 5061 coloured film (yellow, red, blue, green, brown) + 5090 anti-dew film

ORALITE 6910 Brilliant Grade + 5061 coloured film (yellow, red, blue, green, brown) + 5095 anti-graffiti film

ORALITE 6910 Brilliant Grade + 5019 UV digital printing ink (all colours) for use with UV Digital Traffic Sign Printer + 5061 transparent Film

ORALITE 6910 Brilliant Grade + 5019 UV digital printing ink (all colours) for use with UV Digital Traffic Sign Printer + 5090 anti-dew film

ORALITE 6910 Brilliant Grade + 5019 UV digital printing ink (all colours) for use with UV Digital Traffic Sign Printer + 5095 anti-graffiti film

ORALITE 6910 Brilliant Grade + 5019 UV digital printing ink (black) for use with UV Digital Traffic Sign Printer (without protective laminate)

ORALITE 6910 Brilliant Grade + 5019i UV digital printing ink (all colours) for use with UV Digital Traffic Sign Printer + 5061 transparent film

ORALITE 6910 Brilliant Grade + 5019i UV digital printing ink (all colours) for use with UV Digital Traffic Sign Printer + 5090 anti-dew film

ORALITE 6910 Brilliant Grade + 5019i UV digital printing ink (all colours) for use with UV Digital Traffic Sign Printer + 5095 anti-graffiti film

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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.com

4. Authorised representative – *not relevant*

5. System/s of AVCP: **1**

6 a) Harmonised standard: - *not applicable*

Notified body/ies: - *not applicable*

6 b) European Assessment Document:

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

European Technical Assessment:

Number	Date of issue
ETA-15/0104	28.01.2016
ETA-15/0106	28.01.2016
ETA-15/0107	28.01.2016
ETA-15/0108	28.01.2016
ETA 16/0611	16.11.2016
ETA 16/0613	16.11.2016
ETA 13/0247	20.02.2018
ETA 13/0248	20.02.2018
ETA 13/0249	20.02.2018
ETA 13/0250	20.02.2018
ETA 13/0251	20.02.2018

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Technical Assessment Body:

Deutsches Institut für Bautechnik (DIBt)
Kolonnenstraße 30 B
10829 Berlin

Notified body/ies:

Kennnummer: **0913**
Name: **StrAus-Zert**; Fleyer Straße 204; 58097 Hagen
Zertifikat Nr.: 0913 – CPR – 2018 / 001

7. Declared performance/s:

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

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

Posted on Webpage:

https://www.orafol.com

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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 — i.A.

[date and place of issue] — *[signature]*

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Attachment 1

Table 1: **Specific Coefficient of Retroreflection R_A (Unit: $cd \cdot m^{-2} \cdot lx^{-1}$) for traffic signs in new condition: Class RA3 according to TLP VZ 2007/0661/D**

Geometry		Colour							
α	β_1 ($\beta_2 = 0$)	White	Yellow	Red	Green	Blue	Brown	Orange	Grey
0,33°	+ 5°	300	195	60	30	19	10,6	150	150
	+ 20°	240	155	48	24	16	8,9	120	120
	+ 30°	165	110	33	17	11	6,2	83	82,5
	+ 40°	30	20	6,0	3,0	2,0	1,1	15	15
1°	+ 5°	35	23	7,0	3,5	2,5	1,4	18	17,5
	+ 20°	30	20	6,0	3,0	2,0	1,1	15	15
	+ 30°	20	13	4,0	2,0	1,5	0,84	10	10
	+ 40°	3,5	2,0	1,0	0,5	0,5	#	2,0	1,75
1,5°	+ 5°	15	10	3,0	1,5	1,0	#	7,5	7,5
	+ 20°	13	8,0	2,5	1,0	0,5	#	6,5	6,5
	+ 30°	9,0	6,0	2,0	0,5	0,5	#	4,5	4,5
	+ 40°	1,5	1,0	0,5	#	#	#	1,0	0,75

# 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 TLP VZ 2007/0661/D**

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	> 0,27
Yellow	0,494	0,505	0,470	0,480	0,513	0,437	0,545	0,454	> 0,16
Red	0,735	0,265	0,700	0,250	0,610	0,340	0,660	0,340	> 0,03
Green	0,110	0,415	0,170	0,415	0,170	0,500	0,110	0,500	> 0,03
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	> 0,14
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: $cd \cdot m^{-2} \cdot lx^{-1}$) for traffic signs after weathering: Class RA2 according to TLP VZ 2007/0661/D

Geometry		Colour							
α	β_1 ($\beta_2 = 0$)	White	Yellow	Red	Green	Blue	Brown	Orange	Grey
0,33°	+ 5°	240	156	48	24	15,2	8,5	120	120
0,33°	+ 30°	132	88	26,4	13,6	8,8	4,9	66,4	66

Table 4: Daylight chromaticity coordinates and luminance factors for traffic signs after weathering: Class CR 1 according to DIN EN 12899-1 and according to TLP VZ 2007/0661/D

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	> 0,27
Yellow	0,545	0,454	0,487	0,423	0,427	0,483	0,465	0,534	> 0,16
Red	0,735	0,265	0,674	0,236	0,569	0,341	0,655	0,345	> 0,03
Green	0,007	0,703	0,248	0,409	0,177	0,362	0,026	0,399	> 0,03
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	> 0,14
Grey	0,350	0,360	0,300	0,310	0,285	0,325	0,335	0,375	$0,11 \leq \beta \leq 0,18$