

Attachment to EC Certificate of Conformity 0913 – CPD – 2009 / 001 (4 pages)

The above certified retroreflective sheeting ORALITE® 5710 Engineer Grade to be used for fixed, vertical road traffic signs using glass bead technology is admitted for the following original dyed colours:

| Colour | Name of the product | Visibility characteristics | | Durability | |
|--------|----------------------------------|---|---|------------------------------|-------------------------------------|
| | | Daylight chromaticity & luminance factor 4.1.1.3 | Coefficient of retroreflection 4.1.1.4 | Impact resistance 4.1.2.1 | Resistance to weathering 4.1.1.5 |
| White | ORALITE® 5710-010 Engineer Grade | CR2 | RA1 | pass | pass |
| Yellow | ORALITE® 5710-020 Engineer Grade | CR2 | RA1 | pass | pass |
| Red | ORALITE® 5710-030 Engineer Grade | CR2 | RA1 | pass | pass |
| Blue | ORALITE® 5710-050 Engineer Grade | CR2 | RA1 | pass | pass |
| Green | ORALITE® 5710-060 Engineer Grade | CR2 | RA1 | pass | pass |
| Orange | ORALITE® 5710-035 Engineer Grade | CR1 | RA1 | pass | pass |
| Brown | ORALITE® 5710-080 Engineer Grade | CR2 | RA1 | pass | pass |

The above certified retroreflective sheeting ORALITE® 5710 Engineer Grade to be used for fixed, vertical road traffic signs using glass bead technology is accepted to be coloured by the below listed materials:

Lettering Film:

| Colour | Name of the product | Visibility characteristics | | Durability | |
|--------|----------------------------------|---|---|------------------------------|-------------------------------------|
| | | Daylight chromaticity & luminance factor 7.3.1.3 | Coefficient of retroreflection 4.1.1.4 | Impact resistance 4.1.2.1 | Resistance to weathering 4.1.1.5 |
| Black | ORALITE® 5071-070 Lettering Film | NR1 | - | pass | pass |

Screenprinting Colours on white retroreflective sheeting:

| Colour | Name of the product | Visibility characteristics | | Durability | |
|--------|---------------------------------------|---|---|------------------------------|-------------------------------------|
| | | Daylight chromaticity & luminance factor 4.1.1.3 | Coefficient of retroreflection 4.1.1.4 | Impact resistance 4.1.2.1 | Resistance to weathering 4.1.1.5 |
| 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 |

Screenprinting Colours on yellow retroreflective sheeting:

| Colour | Name of the product | Visibility characteristics | | Durability | |
|--------|---------------------------------------|--|--|---------------------------|----------------------------------|
| | | Daylight chromaticity & luminance factor 4.1.1.3 | Coefficient of retroreflection 4.1.1.4 | Impact resistance 4.1.2.1 | Resistance to weathering 4.1.1.5 |
| 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

| Colour | Name of the product | Visibility characteristics | | Durability | |
|-------------------|--|--|--|---------------------------|----------------------------------|
| | | Daylight chromaticity & luminance factor 4.1.1.3 | Coefficient of retroreflection 4.1.1.4 | Impact resistance 4.1.2.1 | Resistance to weathering 4.1.1.5 |
| on white sheeting | ORALITE® 5710-010 Engineer 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 |

| Colour | Name of the product | Visibility characteristics | | Durability | |
|--------|--|--|--|---------------------------|----------------------------------|
| | | Daylight chromaticity & luminance factor 7.3.1.3 | Coefficient of retroreflection 4.1.1.4 | Impact resistance 4.1.2.1 | Resistance to weathering 4.1.1.5 |
| 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.

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

Digital Printing Colour ORALITE® 5019i UV Digital Printing Ink

| Colour on white sheeting | Name of the product | Visibility characteristics | | Durability | |
|--------------------------------|--|--|--|---------------------------------|--|
| | | Daylight chromaticity & luminance factor 4.1.1.3 | Coefficient of retroreflection 4.1.1.4 | Impact resistance 4.1.2.1 | Resistance to weathering 4.1.1.5 |
| 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 |

| Colour | Name of the product | Visibility characteristics | | Durability | |
|--------|--|--|--|---------------------------------|--|
| | | Daylight chromaticity & luminance factor 7.3.1.3 | Coefficient of retroreflection 4.1.1.4 | Impact resistance 4.1.2.1 | Resistance to weathering 4.1.1.5 |
| Black | ORALITE® 5019i-070 UV Digital Printing Ink and ORALITE® 5062-000 Transparent Film | NR1 | - | pass | pass |

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 Engineer Grade with screen-printing ORALITE® 5018 5018

| Colour | Name of the product | Visibility characteristics | | Durability | |
|--------|--|--|--|---------------------------|----------------------------------|
| | | Daylight chromaticity & luminance factor 4.1.1.3 | Coefficient of retroreflection 4.1.1.4 | Impact resistance 4.1.2.1 | Resistance to weathering 4.1.1.5 |
| Red | ORALITE® 5018-030 Screen Printing Ink and ORALITE® 5095 Anti-Graffiti Film | CR2 | RA1 | erfüllt | erfüllt |
| Blue | ORALITE® 5018-050 Screen Printing Ink and ORALITE® 5095 Anti-Graffiti Film | CR2 | RA1 | erfüllt | erfüllt |
| Black | ORALITE® 5018-070 Screen Printing Ink and ORALITE® 5095 Anti-Graffiti Film | NR1 | - | erfüllt | erfüllt |

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, 23 February 2018



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