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DATASHEET RETROLITE

RTL 50 FR IW

DESCRIPTION



RETROLITE RTL 50 FR IW

HV Flame Retardant silver fabric, made of 100% FR high-quality cotton layer covered by high reflective glass microspheres that have a constant and known refractive value.

It is 20471- class II certified according to certificate no. **CO 0824180037-00-07**, released by Centro Tessile Cotoniero e Abbigliamento Spa. It is also certified according to **OEKOTEX STANDARD 100 Class II**.



It can be silk-printed, LASER marked and a PERFORATED version is available, too.

It is a reflective fabric especially designed to:

- ✓ *increase the retro-reflection of the light on garments in low visibility conditions;*
- ✓ *offer high resistance to domestic and industrial washings;*
- ✓ *Satisfy the needs of firefighters, wildland firefighters and industry sector;*

TECHINICAL SPECIFICATIONS

- ✓ **Total thickness:** 450-480 Micron
- ✓ **Support fabric:** 100% FR Cotton fabric
- ✓ Glass Microspheres with constant refractive value: 1.93
- ✓ **Minimum Refraction:** 450clx 12'/5"
- ✓ **Weight:** 350 gr/mq

COLORIMETRY

Trichromatic coordinates:

$x = 0.309$ $y = 0.326$ $\beta = 19.0$ (luminance factor Beta)

REFRACTION * (Cd/lux m²)

Observation angle	Illumination angle			
	5°	20°	30°	40°
12'	512.9-551.2	549.2-570.9	509.5-561.5	334.4-410.1
20'	362.0-389.9	384.6-398.7	374.7-399.2	278.8-324.5
1°	32.3-33.3	30.4-32.7	33.8-33.8	31.7-32.0
1°30'	17.8-18.0	17.0-17.9	16.3-16.5	19.5-19.8

The retro-reflective properties of RETROLITE 50 FR IW comply with the values required by EN 20471 (class II) as per certificate released by Centro Tessile Cotoniero e Abbigliamento Spa.

PRODUCT SPECIFIC RESISTANCES

RETROLITE RTL 50 FR IW complies with the values required by EN 20471.

In particular:

1. Bending (ISO 7854/A 7500 cycles)
2. Cold bending (ISO 4675 -20°C)
3. Abrasion (UNI 530/2 5000 cycles)
4. ISO 6330 method 2 A - 55 domestic washing cycles at 60°C
5. ISO 15797 – 65 industrial washing cycles at 75°C
6. ISO 3175 – 20 dry cleaning cycles
7. ISO 14116 – 2015
8. ISO 11611 - 2015
9. ISO 11612 – 2015
10. SO 15614 – 2007
11. ISO 15384 – 2020
12. EN 469 – 2020
13. ISO 1149 - 2018
14. Photometric Rain Performance Test (EN 471 Annex A)
15. Temperature variations 12 hours at 50°C – 20 hours at -30°C

PRODUCT WASH RESISTANCES

RETROLITE RTL 50 FR IW complies with the values required by EN 20471 and the following norms in the table

RTL 50 FR IW		
NORM	WASHING CYCLES	DESCRIZIONE LAVAGGI
ISO 6330/2A	50	Domestic washing cycles at 60°C
ISO 15797	65	Industrial washing cycles at 75°C – Tumble Dry 80°C
ISO 3175	20	Dry cleaning cycles
ISO 14116	65	Limited flame spread
ISO 11612	65	Clothing to protect against heat and flame
ISO 15614	50	Wildland clothing
ISO 15384	65	Wildland firefighting clothing
ISO 469	65	Protective clothing for firefighting activities
ISO 1149-5	65	Electrostatic properties – Tumble dry 60°C
AVAILABLE FORMATS		
WIDTH	RUNNING METERS	AVAILABILITY
H 30 mm	50 mt	V
H 50 mm	50 mt	V
H 70 mm	50 mt	V
H 1050 mm	50 mt	V
Different widths	50 mt	On demand

Detergent: use only ECE detergent, A type, **without optical brighteners or perborates**.

- ✓ Optical brighteners, perborates, or other brighteners, decrease RETROLITE 50 FR IW performances.
- ✓ Do not use organic solvents, chlorine-based brighteners and strong alkaline substances (pH>8).
- ✓ Do not exceed the temperature of 75°C during the washing process.

DRYING CONDITIONS

- ✓ Air drying is recommended.
- ✓ TUMBLE DRY: do not exceed 80°C.

IRONING

Ironing: do not exceed temperature of 120 °C.

HOW TO USE

Stitching: 100% FR Polyester sewing thread is recommended

CUSTOMIZATION

The product can be silk-printed using vinyl-based ink or other different ones.
Washing tests need to be run to prove the correct behaviour of the inks adopted.
It can be laser marked with any kind of logo, brand, serial number, both in reels or single labels.
Laser marking modifies permanently the fabric.

FURTHER INFORMATION

- ✓ The product must be stocked in a dry environment with a temperature between 15°C and 30°C and far away from heat sources and direct light. The product must be used within one year from the delivery.
- ✓ The product is supplied in 50/100 running meters reels +/- 0,5mt, from 1cm up to 105cm width.

For further information, please contact IRE S.r.l.

IRE Srl

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