

DATASHEET RETROLITE

RTL 50 FR Y/S

DESCRIPTION



RETROLITE RTL 50 FR Y/S

HV Flame retardant yellow-silver-yellow tape, made of 100% FR cotton layer covered with two high reflective glass microspheres layers, a yellow base and a silver stripe anchored in the central part.

It is certified according to 20471 as per certificate no. **N° CO 0824180093-00-02** release by Centro Tessile Cottoniero e Abbigliamento Spa. It is also **OEKOTEX STANDARD 100 class II** certified.

It is also certified according to ISO 6330 2A for 50 domestic washing cycles at 60°C and to ISO 3175 for 10 dry cleaning cycles.

It can be customized by laser mark technology and a perforated version is available, too.

It mainly finds application in specialized HV protective garments, such as fire brigade workwear, that need to match the following norms: 20471, 469, 14116, 11611, 11612, 15614, 15384.

It is especially designed to:

- ✓ Increase visibility in low-light conditions;
- ✓ Provide high resistance to washings cycles;



TECHINICAL SPECIFICATIONS

- ✓ **Total thickness:** 450-480 Micron
- ✓ **Support fabric:** 100% FR cotton fabric
- ✓ Glass Microspheres with constant refractive value: 1.93
- ✓ **Minimum Refraction:** 80 clx 12'/5"
- ✓ **Weight:** 350 gr/mq

COLORIMETRY

Trichromatic coordinates of the yellow stripes:

Before the exposure: $x = 0.404$ $y = 0.536$ Y $\beta = 0.947$ (luminance factor Beta)
After the exposure: $x = 0.406$ $y = 0.535$ Y $\beta = 0.894$ (luminance factor Beta)

REFRACTION * (Cd/lux m²)

Observation angle	Illumination angle			
	5°	20°	30°	40°
12'	477.2-479	510.9-515	431.9-458.8	259.6-303
20'	331.1-331.0	347.1-350.2	321.2-325.9	217.3-245.6
1°	34.4-35.3	39.5-41.7	39.9-49.8	20.8-26.3
1°30'	16.1-16.6	15.1-15.5	18.5-19.8	20.2-25.0

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

PRODUCT SPECIFIC RESISTANCES

RETROLITE RTL 50 FR Y/S 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 - 50 domestic washing cycles at 60°C
5. ISO 3175 – 10 dry cleaning cycles
6. ISO 14116 – 2015
7. ISO 11611 - 2015
8. ISO 11612 – 2015
9. SO 15614 – 2007
10. ISO 15384 – 2020
11. EN 469 – 2020
12. Photometric Rain Performance Test (EN 471 Annex A)
13. Temperature variations 12 hours at 50°C – 20 hours at -30°C

PRODUCT WASH RESISTANCES

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

RTL 50 FR Y/S		
NORM	WASHING CYCLES	DESCRIZIONE LAVAGGI
ISO 6330/2A	50	Domestic washing cycles at 60°C
ISO 3175	10	Dry cleaning cycles
ISO 14116	50	Limited flame spread
ISO 11612	50	Clothing to protect against heat and flame
ISO 15614	50	Wildland clothing
ISO 15384	50	Wildland firefighting clothing
ISO 469	50	Protective clothing for firefighting activities
AVAILABLE FORMATS		
WIDTH	RUNNING METERS	AVAILABILITY
H 50 mm	50 mt	V
H 75 mm	50 mt	V
H 100 mm	50 mt	V

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

- ✓ Optical brighteners, perborates, or other brighteners, decrease RETROLITE 50 FR Y/S performances.
- ✓ Do not use organic solvents, chlorine-based brighteners and strong alkaline substances (pH>8).
- ✓ Do not exceed the temperature of 60°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.

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