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DATASHEET RETROLITE

RTL 20 FR Y

DESCRIPTION



RETROLITE RTL 20 FR Y

HV Flame Retardant yellow fabric, made of 100% FR cotton layer covered with high reflective glass microspheres. It can be silk-printed, LASER marked 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, 11612, 15614, 15384, 1149.



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 washings;*
- ✓ *Satisfy the needs of the firefighters and wildland firefighters*

The product is **UNI EN 20471** certified as per certificate No. **CO0824200110-00-03** released by Centro Tessile Cotoniero e Abbigliamento Spa. It is also certified according to **OEKOTEX STANDARD 100 Class II**.

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:

Before the exposure → $x = 0,404$ $y = 0,536$ Y $\beta = 0,947$ (luminance factor Beta)
After the exposure → $x = 0,403$ $y = 0,526$ Y $\beta = 0,906$ (luminance factor Beta)

REFRACTION * (Cd/lux m²)

	Angolo di illuminazione
Angolo di Osservazione	5°
12'	87.2

The retro-reflective properties of RETROLITE 20 FR Y 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 20 FR Y 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 – 20 industrial washing cycles at 75°C
6. ISO 3175 – 10 dry cleaning cycles
7. ISO 14116 – 2015
8. ISO 11612 – 2015
9. SO 15614 – 2007
10. ISO 15384 – 2020
11. EN 469 – 2020
12. ISO 1149 - 2018
13. Photometric Rain Performance Test (EN 471 Annex A)
14. Temperature variations 12 hours at 50°C – 20 hours at -30°C

PRODUCT WASH RESISTANCES

RETROLITE RTL 20 FR Y complies with the values required by EN 20471 and the following norms in the table

RTL 20 FR Y		
NORM	WASHING CYCLES	DESCRIZIONE LAVAGGI
ISO 6330/2A	55	Domestic washing cycles at 60°C
ISO 15797	20	Industrial washing cycles at 75°C – Tumble Dry 80°C
ISO 3175	10	Dry cleaning cycles
ISO 14116	55	Limited flame spread
ISO 11612	55	Clothing to protect against heat and flame
ISO 15614	55	Wildland clothing
ISO 15384	55	Wildland firefighting clothing
ISO 469	55	Protective clothing for firefighting activities
ISO 1149-5	55	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 60 mm	50 mt	V
H 70 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 20 FR Y 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% 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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