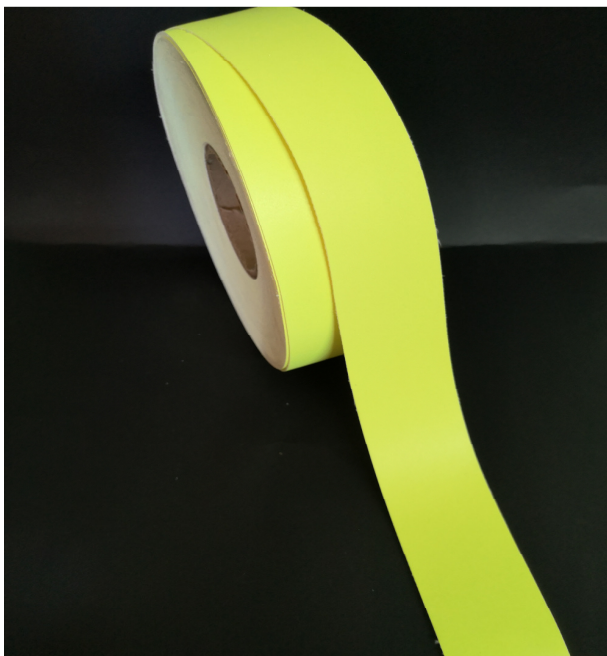


GENERAL CHARACTERISTICS



Retrolux FLR 900 COMBY-Y is a yellow fluorescent flame retardant fabric.

The product basically consists of exposed, wide angle retroreflective glass beads, with a durable flame resistant cotton backing.

Retrolux FLR 900 COMBY-Y is also available in perforated version, with the same resistance and photometric properties of the original material.

RETROLUX FLR 900 COMBY-Y is a reflective fabric designed for:

- application on Flame retardant garment
- application on firefighters Improve the daytime and nighttime visibility of the garments
- offer a high resistance of the clothing to repeated domestic washings clothing
- Improve the daytime and nighttime visibility of the garments
- offer a high resistance of the clothing to repeated domestic washings

PRODUCT COMPOSITION

Front coating: Glass microspheres with constant reflective power.

Binder: yellow fluorescent polyurethane resin with flame retardant features.

Substrate: flame retardant cotton fabric with high dimensional stability.

Fabric composition 100% Cotton

Weight 350 g/m²

COLORIMETRY

New material: **Y=87.0** **x= 0,370** **y= 0,505**

After xenon test: **Y=80.0** **x= 0,368** **y= 0,484**

(norm EN 471, test method UNI ISO 105 B02)

The colour coordinates and the luminance factor of RETROLUX FLR 900 COMBY-Y satisfy all the minimum requirements envisaged by the Norm **EN 20471: 2017** (combined performance material).

COEFFICIENT OF RETROREFLECTION* (Cd/lux·m²)

Observation Angle	Entrance Angle			
		20°	30°	40°
12'	95-100	97-102	92-95	62-65
20'	73-75	75-77	70-72	58-60
1°	9 -9.7	9.4-9.6	9.3-9.7	8.0-7.8
1° 30'	51-5.6	4.8-5.2	4.4-4.6	3.7-3.8

*The values were obtained from an average of various sets of samples. Reflected colour: white.

The reflective fabric called **RETROLUX FLR 900 COMBY-Y** satisfies all the minimum requirements according to the Norm EN 20471: 2017 (combined performance material).

PHYSICAL PERFORMANCE

RETROLUX FLR 900 COMBY-Y meet or exceed the minimum reflective values after the following test:

1. Flexing (ISO 7854/A 7500 cycles)
2. Cold Fold (ISO 4675 -20°C)
3. Abrasion (UNI 530/2 5000 cycles)
4. Temperature variance (12 hours at 50°C, 20 hours at -30°C)
5. Rainfall test (Annex A, ANSI ISEA 107-99 Annex A)
6. Colour fastness to dry friction (ISO 105 X12 10 cycles): Index 5
7. Colour fastness to wet friction (ISO 105 X12 10 cycles): Index 5
8. Colour fastness to mechanical washing with synthetic cleaning (ISO C06, C1S test - 60°C without perborates): Index 5

FLAME RESISTANCE PROPERTIES

RETROLUX FLR 900 COMBY-Y satisfies the following requirements:

1. **Limited flame spread** (EN 14116, test method EN 15025):
Index 3 after 30 washing cycles at 60°C
Index 2 after 30 washing cycles at 92°C
Index 2 after 30 cycles of dry cleaning
2. Size variations are in compliance with EN 469 after **heat resistance test** (test method ISO 17493 - 5 minutes at 180°C).

WASHING PERFORMANCES

RETROLUX FLR 900 COMBY-Y exceed the minimum reflective values after:

30 cycles at 60 °C (ISO 6330)

35 cycles of dry cleaning (ISO 3175-method 9.1)

Wash guideline



Minimum temperature: 30 °C

Maximum temperature: 95 °C

Detergent: Use only **ECE type A** without perborates

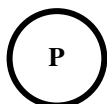


- Optical brightness, perborates or additional bleaches, reduces washing performances of Retrolux FLR 900 COMBY-Y.
- Do not use organic solvents, chlorine bleaches and alkaline products (pH>8).
- Do not exceed 95 °C during wash

Drying Conditions

- Air drying is recommended.

Dry cleaning



Use pure Perchloroethylene

ADDITIONAL INFORMATION

The material is supplied in rolls of 50 linear meters length and in all widths from 1 cm till 1 meter. The cut tolerance is ± 1.5 mm.for For cutting die cutting is recommended. Reflective fabric can also be hand-cut or guillotined.

Sewing: 100% polyester yarn FR is recommended.

IRONING:

Use cool IRON (110°C)



PRINTABILITY

The product correctly transferred and in any case without the front liner, can be printed using inks suitable for polyester or other inks, carrying out preliminary adhesion tests.

We recommend the application of the ink with screen printing technique, good results have been obtained with digital printing with ecosolvent inks.

The correct adhesion of the inks must also be verified by subjecting the printed product to repeated washing.

STORAGE

Retrolux reflective transfer must be stored in a cool and dry area, we recommend temperatures between 15 and 25 °C and relative humidity less than 70%.

Retrolux reflective transfer must be stored in their original box and used within 1 year of receipt.

FOR FURTHER INFORMATION CONTACT IRC S.p.A - Italy

Laboratory Manager