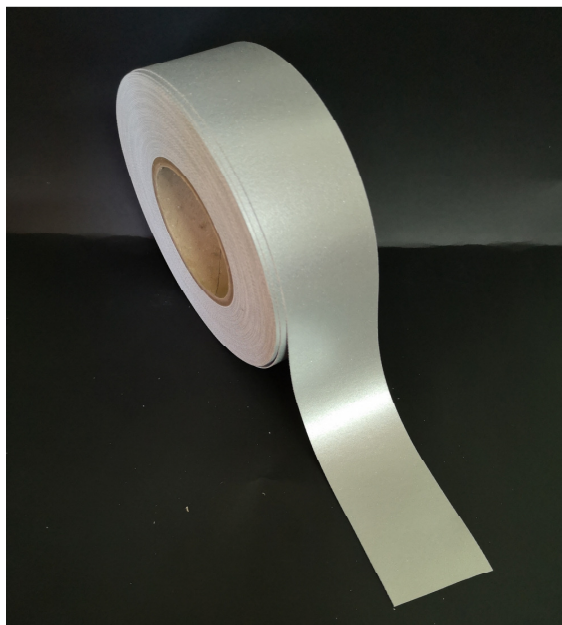


GENERAL CHARACTERISTICS



The product basically consists of a fabric coated with metallised microspheres having known reflective index, by means of a special polyurethane binder with high flexibility and resistance to mechanical and chemical-physical stresses.

In addition, Retrolux FLR 600 is obtained by the usage of raw materials which are flame retardant, making the fabric suitable to pass the most severe tests against free-flame propagation.

RETROLUX FLR 600 is a reflective fabric designed for:

- application on Flame retardant garment
- application on trivalent garment
- offer a high resistance of the clothing to repeated industrial washings
- improve the retro-reflection on clothing in conditions of poor visibility

PRODUCT COMPOSITION

Front coating: Glass microspheres with constant reflective power, metallised.

Binder: Aliphatic polymerising polyurethane resin with flame retardant features.

Substrate: flame retardant cotton fabric with high dimensional stability.

Fabric composition	100% Cotton
Weight	350 g/m ²
Weight of the finished product	575-585 g/m ²
Total thickness	590-600 µm

COEFFICIENT OF RETROREFLECTION* (Cd/lux·m²)

Observation Angle	Entrance Angle			
	5°	20°	30°	40°
12'	505-515	522-531	374-442	146-179
20'	330-360	338-366	300-316	139-171
1°	29-44	28-37	22-25	26-39
1° 30'	13-18	10-11	13-21	8-9

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

The silver grey reflective fabric called RETROLUX FLR 600 satisfies all the minimum requirements accordingly EN 20471 Norm

PHYSICAL PERFORMANCE

RETROLUX FLR 600 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)

FLAME RESISTANCE PROPERTIES

RETROLUX FLR 600 satisfies the following requirements:

1. **Limited flame spread** (EN 14116, test method EN 15025): **Index 3** before and after 50 cycles of industrial washing and 50 cycles domestic washing at 60 °C
2. After **heat resistance test** (5 min 260 °C- ISO 17493 EN 469 Annex A) it considerably exceed 100 Cd/lux·m²
3. After **radiant heat test** (10 kW/m² – EN 366, test method EN 532) it considerably exceed 100 Cd/lux·m²
4. Heat resistance (EN 11612 at 180 °C) before and after 50 cycles of industrial washing and 50 cycles domestic washing at 60 °C

WASHING PERFORMANCES

RETROLUX FLR 600 exceed the minimum reflective values after:

50 industrial washing cycles method ISO 15797 with 160 °C tunnel finishing

20 cycles at 90 °C (ISO 6330)

50 cycles at 60 °C (ISO 6330)

55 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

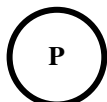


- Optical brightness, perborates or additional bleaches, reduces washing performances of Retrolux FLR 600.
- Do not use organic solvents, chlorine bleaches and alkaline products (pH>8).
- Do not exceed 95°C during wash
- Do not exceed 120°C during drying

Drying Conditions

- **Air drying is recommended**
- **TUMBLE DRY: NOT EXCEED 90°C**
- **TUNNEL DRY: 120°C is recommended, not exceed 160°C.**

Dry cleaning



Use pure Perchloroethylene

ELECTROSTATIC PROPERTIES (Reference Standard EN 1149-5):

Retrolux FLR 600 reflective fabric has electrostatic charge dissipation properties in compliance with EN 1149-5: 2018, Test Method EN 1149-3 method 2 (charge induction).

The product passes the test both new and after washing

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 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