



## INDUSTRIAL WASHING HEAT TRANSFER REFLECTIVE FILM D4120

D4120 INDUSTRIAL WASHING HEAT TRANSFER REFLECTIVE FILM are designed for industrial washing safety garments, functional wear etc. DM brand heat transfer film help enhance the visibility of the wearer in nighttime or lowlight conditions when illuminated by a light source, such as headlights, by returning the light back toward the original source and reaching the automobile driver's eye.

**Item Code:** D4120

**Color:** Silver

**Fabric Backing:** 100% polyester

**Thickness:** 150 $\mu$ m $\pm$ 10 $\mu$ m

**Weight:** 370 $\pm$ 10 g/m<sup>2</sup>



### RETRO-REFLECTIVE PERFORMANCE

Minimum Initial coefficient of retro-reflection in cd/lux·m<sup>2</sup> and testing results by TUV, SATRA or CALCOAST

Entrance angle \ Observation angle	5°		20°		30°		40°	
	Class II	Results						
12'	330	518	290	468	180	419	65	432
20'	250	394	200	366	170	337	60	297
1°	25	51	15	59	12	59	10	49
1°30'	10	20	7	24	5	26	4	24

### Retro-reflective performance after test exposure

Coefficient(cd/lux·m <sup>2</sup> )	Standard Requires : cd/lux·m <sup>2</sup>
After Abrasion	706 ISO 12947 ( 5000cycles / 9kpa)
After flexing	564 ISO 7854 Method A(7500Cycles)
After folding at cold temperature	607 ISO 4675 (-20°C)
After climatic ageing	614 EN ISO 20471:2013/A1:2016 section 7.4.4
After Rainfall	301 EN ISO 20471:2013/A1:2016 Annex C
After home washing	134 EN ISO 6330 6N, 75 cycles



After industrial washing	127	EN ISO 15797, 50cycles
After dry cleaning	620	ISO 3175, 30cycles

Certificates	Certificate Specifications
OEKO-Tex standard 100	Class I (Articles within direct contact to skin)
EN ISO 20471	Class II
ANSI/ISEA 107	CLASS I & CLASS II

## Washing Instructions

 Domestic wash: Max 60 °C, duration 60 minutes. Refer to detergent manufacturer for right dosage and products for your water hardness.

 Industrial wash: Max 85 °C, ISO 15797

 Tumble drying: Max 90 °C.

 Ironing: Medium iron, not steam.

 Dry cleaning: Perchloroethylene recommended.

 Bleach: Not recommended.

## APPLICATION INSTRUCTIONS ( Important )

1. Application temperature is 130~150°C, pressure under about 3~4Pa for 10~15 seconds.
2. The lamination temperature, time, and pressure listed should be used as a guide.
3. Remove the plastic layer on the reflective surface after cold. If necessary, pls heat press the film again.
4. Each substrate and retroreflective film combination should be tested to determine the best set of conditions that will meet customer requirements. The proper temperature, time, and pressure conditions must be tested for each fabric to assure adequate adhesion and physical performance. Many fabrics can be used as lamination substrates; however, some substrates such as nylons and fabrics treated with durable water repellent (DWR) finish are not suitable to adhere to.
5. It is recommended that initial and continuous testing be done on all heat lamination methods, retroreflective materials and fabrics to ensure that acceptable adhesion and physical



performance is maintained, as input materials may vary.

## **STORAGE:**

Store in a cool place free of moisture, dry area and use within 1 year of receipt. Rolls should be stored in their original cartons, whilst partially used rolls should be returned to their carton. The retro-reflective performance of all reflective materials is affected by soiling. Any kind of dirt, such as liquid chemicals, greases and alike will reduce brightness in the area of contamination. For specific guidance contact your DM representative

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