



Thermal Transfer Printable Retro-Reflective Label Stock 3929

Product Data Sheet

Updated : July 2000
Supersedes : January 1995

Description : Topcoated to accept resin-based thermal transfer printing.
When bar code printed, retro-reflective facestock extends the maximum and minimum scanning distance of long-range scanners. (Note: Currently, 3M is unable to specify a maximum scanning distance with this material because of the differences between long-range scanners.)

Physical Properties
Not for specification purposes
(Calipers are nominal values)

Facestock	122 micron (4.8 thou) Topcoated Retro-Reflective Film
Adhesive	25 micron (1.0 thou) #200 'Hi Performance' Acrylic
Liner	114 micron (4.5 thou) 130 g/m ² (#80) Clay coated paper
Shelf Life	12 months from receipt of material when properly stored at 22°C & 50 % Relative Humidity

Physical Properties
Not for specification purposes

Adhesion 180° Peel (ASTM D3330)		
Surface	Initial 10 min. dwell N/10mm	Conditioned for 3 days at Room Temperature N/10mm
Stainless Steel Polycarbonate Polypropylene	Destroys upon Removal Destroys upon Removal Not recommended for low surface energy substrates	

180° Liner Release	Rate of Removal	Gram / 25mm Width
	2.3 m / min	20

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Environmental Performance

Indoor / Outdoor Use

Currently this product is recommended for indoor use only. Outdoor use of this product has not been evaluated. The rate at which the scanning distance decreases due to facestock discolouration when used outdoors is not known.

Applications

Warehouse bin labelling and shelf marking.
 Long-range scanning of bar codes in indoor environments.

Processing

Printing :

Printable with resin-based thermal transfer ribbons such as Sony 4070, limak SH-36, Zebra 5099 and 5175, Sato Premier I, and Ricoh B110C.

Die-Cutting :

Rotary die-cutting is recommended.

Splicing :

This product may contain an unusually high number of splices.

Packaging :

Finished labels should be stored in plastic bags.

Scanning :

This product is designed for use with long-range scanners available from Symbol Technologies, PSC, and Hand Held Products.

The maximum and minimum scanning distance of these scanners will increase with the use of 3M 3929 label stock. The range at which a bar code can be scanned is dependent upon the bar code width (i.e. a 75 mil bar code will scan at a longer distance than a 50 mil bar code).

Scanners not designed for long-range scanning may not be able to scan bar codes printed on this product. 3M is not aware of any bar code verifiers that can be used with this product.

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Special Considerations

For maximum bond strength, surface should be clean and dry. A typical cleaning solvent is heptane or isopropyl alcohol. Consult the manufacturer's Material Safety Data Sheet for proper handling and storage of solvents.

For best bonding conditions, application should be at room temperature or slightly higher. Low temperature surfaces, below 10°C (50°F), cause the adhesive to become so firm that it will not develop maximum contact with the substrate.

Higher initial bonds are achieved through increased rub down pressure. Use maximum laminating pressure for best results.

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Values presented have been determined by standard test methods and are average values not to be used for specification purposes. Our recommendations on the use of our products are based on tests believed to be reliable but we would ask that you conduct your own tests to determine their suitability for your applications. This is because 3M cannot accept any responsibility or liability direct or consequential for loss or damage caused as a result of our recommendations.

**Tapes & Adhesives Group**

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