



Scotchcal™ Performance Label

Series 3690

Product Data Sheet

August 2014
Supersedes: June 2014

Product Description

3M™ Scotchcal™ Performance Labels Series 3690 are self adhesive durable films consisting of a PVC backing and a special modified acrylic adhesive. The adhesive is designed to adhere well to difficult to adhere surfaces such as rough and porous substrates, lacquered surfaces, and low surface energy materials such as polyethylene and polypropylene. These films are dimensionally stable and weather resistant.

Therefore the Series 3690 is suitable for demanding outdoor applications which require a high degree of durability.

Construction

Product	Colour	Facestock Thickness in mm	Adhesive Thickness in mm	Liner Thickness in mm (g/m ²)	Liner
3690 A	White glossy	0,050	0,035	0.120 (120)	Densified paper, single sided siliconized
3698 A	Aluminium glossy				
3695 A	Black glossy				
3692 A	Yellow glossy				
3690 B	White glossy			0.175 (150)	Polycoated paper, single sided siliconized
3698 B	Aluminium glossy				
3690 E	White glossy			0.075 (90)	Densified paper, double sided siliconized
3698 E	Aluminium glossy				
3695 E	Black glossy				
3690-943 E	Black matt				
3692 E	Yellow glossy				
3690-906 E	Silver grey glossy				
3690 ED	White matt				
3698 ED	Aluminium matt				
3690-523 ED	Ergo grey matt				
3690B-10BF	White glossy	0,080	0,035	0.175 (150)	Polycoated paper, single sided siliconized
3690 E DSL	White glossy	0,050	0,035	0.056 (64)	Densified paper, double sided siliconized
3692-1802 EDL	Yellow glossy	0,075	0,035	0.075 (90)	Densified paper, double sided siliconized
3692-1802 ADL	Yellow glossy	0,075	0,035	0.120 (120)	Densified paper, single sided siliconized
3692-1802 BDL	Yellow glossy	0,075	0,035	0.175 (150)	Polycoated paper, single sided siliconized

Performance Characteristics

Facestock	PVC Copolymer
Adhesive	Modified Acrylic Adhesive 320E
Adhesive Properties acc to DIN 30646	Permanent Adhesive (PK), Special Adhesive(SK)
Dimensional Stability (acc. to DIN 30646, when adhered)	Classification Number 05 Shrinkage \leq 0.5%
Adhesion Strength Adhesive Bond Level (DIN 30646) to Aluminium to Stainless Steel	T (\geq 25N/25mm) 28N/25mm 28N/25mm
Temperature Resistance (when adhered to Aluminium)	Short Term -40°C to +150°C Long Term -40°C to +90°C
Fire Behaviour (DIN 75200, adhered to substrate)	Self extinguishing
Salt Resistance Test (DIN 50021)	150 hours
Min Service Temperature	+4°C
Substrate Corrosion	Does not cause corrosion of adhered substrate
Exposure to ,sulfur dioxide containing atmosphere in weather chamber (DIN 50018, 2 Cycles)	No change

These films are resistant to most mineral oils and greases, fuels, aliphatic solvents, weak acids, salts and alkalis, such as:

Chemical Agent / Time*	Result
Heptane	resistant
Diesel oil	resistant
Motor oil	resistant
Windscreen cleaner	resistant
Isopropanol	resistant
Industrial Cleaner (Lime based)	resistant
Washing liquid	resistant
Aqueous Acid (pH 4)	resistant
Aqueous Base(pH 10)	resistant

*Film adhered to stainless steel, immersed in the above mentioned agents for 4 hours (at Room temperature)

Converting

Printing	Best results were obtained with screen printing. A colour qualification test is recommended for the manufacturing process. Note: It is recommended also to test the colour when needed for chemical resistance.
Thermal Transfer Printing	The special surface coating of the 3M Thermal Transfer printable films is well suited for colour printing via Thermal Transfer printing. The visual appearance and print durability is dependent on the ribbon used. In order to achieve an optimal print image, the print speed and the transfer temperature may need adjustment.
Diecutting	Sharp knives as well as minimal tension are recommended to minimize possible buildup of adhesive residue.

UL / cUL Information

Detailed information regarding UL / cUL listings of 3M Performance Labels are to be found amongst the 3M Files MH18072, MH16411 and MH11410 on UL Laboratories Inc. (www.UL.com).
Current CSA listings – Canadian Standard Association – (www.csa-international.org).

Storage

This product is best stored 20°C- 25°C and 50% rel. humidity in a clean and dry area. Shelf life is 2 years from date of manufacture. It is recommended for converted products to be stored in plastic film.

Service Life

According to our current knowledge the following functionality and durability of the 3M™ Scotchcal™ label films can be expected: Assuming a vertical orientation of the product in an outdoor environment and assuming proper surface preparation and product application procedures are followed, outdoor longevity of 5 to 7 years can be expected. For indoor applications the films can be expected to last virtually indefinitely.

Additional Information

For additional product information, please contact us at the address here below.

Important Notice

All statements, technical information and recommendations contained in this document are based upon tests or experience that 3M believes are reliable. However, many factors beyond 3M's control can affect the use and performance of a 3M product in a particular application, including the conditions under which the product is used and the time and environmental conditions in which the product is expected to perform. Since these factors are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for the user's method or application. All questions of liability relating to this product are governed by the terms of the sale subject, where applicable, to the prevailing law

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

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