



ScotchCal™ Performance Label

Series 3690 +

Product Data Sheet

March 2019
Supersedes: December 2018

Product Description

3M™ Scotchcal™ Performance Labels Series 3690 and 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 surfaces such as rough and porous substrates, and low surface energy materials such as polyethylene and polypropylene. All products are suitable for outdoor applications, which require a high degree of durability. Their thin caliper and flexibility allow for conformance to small diameter and complex curved surfaces

Construction

Product	Colour	Facestock Thickness in mm	Adhesive Thickness in mm	Liner Thickness in mm (g/m ²)	Liner
3690A	White glossy	0,050	0,035	0.120 (120)	Densified paper, single side siliconized
3698A+	Aluminium glossy				
3695A	Black glossy				
3690-943A+	Black matt				
3690B	White glossy			0.175 (150)	Polycoated paper, single side siliconized
3698B	Aluminium glossy				
3690E+	White glossy			0.075 (90)	Densified paper, double side siliconized
3698E+	Aluminium glossy				
3695E+	Black glossy				
3690-943E+	Black matt				
3690-1402E+	Off White glossy				
3690-906E+	Silver grey glossy				
3690ED+	White matt				
3698ED+	Aluminium matt				
3698EDSL+	Aluminium glossy	0.056 (64)	Densified paper, double side siliconized		
3690B-10BF+	White glossy				
3690EDSL+	White glossy	0,050	0,035	0.072 (92)	Densified paper, double side siliconized
3690SE+	White glossy				
3698SE+	Aluminium glossy				
3692-1802EDL+	Yellow glossy	0,075	0,035	0.075 (90)	Densified paper, single side siliconized
3692-1802ADL+	Yellow glossy	0,075	0,035	0.120 (120)	
3692-1802BDL+	Yellow glossy	0,075	0,035	0.175 (150)	

Performance Characteristics

Facestock	PVC Copolymer
Adhesive	Modified Acrylic Adhesive 90
Adhesive Properties (acc. to DIN 30646)	Permanent Adhesive (PK), Special Adhesive(SK)
Dimensional Stability (acc. to DIN 30646, when adhered)	Classification Number 05 Shrinkage ≤ 0.5 %
Adhesion Strength Adhesive Bond Level (DIN 30646) to Aluminium to Stainless Steel	T (≥ 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 metal 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)

Application Ideas

- Bar code labels and rating plate labels for demanding industrial or equipment applications.
- Durable goods labeling.
- Conformable to small diameter and complex curved surfaces.

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.

Storage

Store at 16 °C – 25 °C and 40 – 65 % relative humidity. The product can be stored up to 24 months after manufacturing.
It is recommended to store converted products in plastic bags.

Additional Information

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

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