Technical Data Sheet

3M™ Comformable Double Coated Tape 93425

Product Description

Finite Element Analysis (FEA)data is available for this product at: **3m.com/FEA**

3M™ Conformable Double Coated Tape 93425 is a high-performance double coated tape specifically designed for the bonding of touch panel modules to device housings ("Lens" or "Window" Bonding). This product incorporates a unique energy absorbing carrier film and pressure sensitive adhesive that provides an exceptional balance of properties required for demanding applications. 3M™ acrylic adhesive provides good bond strength to most surfaces, including printed inks.

Product Features

- Excellent anti-lifting properties
- Great drop performance is obtained from the energy absorbing core
- Chemical Resistant to a variety of household chemicals
- Great peel adhesion to both Low Surface Energy (LSE) and High Surface Energy (HSE) surfaces

Technical Information Note

The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Typical Physical Properties

Attribute Name	Test Method	Test Condition	Value
Adhesive Type		Faceside	Acrylic Adhesive [1]
Adhesive Type		Backside	Acrylic Adhesive [2]
Adhesive Carrier			Energy Absorbing Core, Black
Total Tape Thickness	ASTM D3652		0.25 mm (10 mil)
Adhesive Thickness		Faceside	0.0625 mm (2.5 mil) [1]
Adhesive Thickness		Backside	0.0625 mm (2.5 mil) [2]
Carrier Thickness			0.125 mm (5 mil)
Liner			PCK
Liner Thickness			0.106 mm (4.2 mil)

[1] Faceside adhesive is on the interior of the roll, exposed when unwound and liner removed.

[2] Backside adhesive is on the exterior of the roll, exposed when liner is removed.

Typical Performance Characteristics

180° Peel Adhesion

Test Method: ASTM D3330

Dwell Time	Temperature	Substrate	Backing	Value
15 min	23 °C (73 °F)	ABS	2 mil PET	12 N/cm (110 oz/in) [1]
15 min	23 °C (73 °F)	Polycarbonate (PC)	2 mil PET	13.1 N/cm (120 oz/in) [1]
15 min	23 °C (73 °F)	Polypropylene (PP)	2 mil PET	10.9 N/cm (100 oz/in) [1]

Dwell Time	Temperature	Substrate	Backing	Value
15 min	23 °C (73 °F)	Stainless Steel	2 mil PET	12.6 N/cm (115 oz/in) [1]
72 h	23 °C (73 °F)	ABS	2 mil PET	13.1 N/cm (120 oz/in) [1]
72 h	23 °C (73 °F)	Glass	2 mil PET	12.6 N/cm (115 oz/in) [1]
72 h	23 °C (73 °F)	Polycarbonate (PC)	2 mil PET	13.1 N/cm (120 oz/in) [1]
72 h	23 °C (73 °F)	Polypropylene (PP)	2 mil PET	12.6 N/cm (115 oz/in) [1]
72 h	23 °C (73 °F)	Stainless Steel	2 mil PET	13.1 N/cm (120 oz/in) [1]
72 h	70 °C (158 °F)	Glass		8.2 N/cm (75 oz/in) [1]
72 h	70 °C (158 °F)	Polycarbonate (PC)		8.2 N/cm (75 oz/in) [1]

[1] 304 mm/min (12 in/min)

Static Shear

Test Method: ASTM D3654

Temperature	Test Condition	Value
23 °C (73 °F)	1000 g	>10,000 min [1]
70 °C (158 °F)		>10,000 min [1]

[1] 25 x 25 mm (1 in x 1 in) sample area, test terminated after 10,000 minutes

Attribute Name	Value
Short Term Temperature Resistance	149 °C (300 °F) [1]
Long Term Temperature Resistance	93 °C (200 °F) [2]

[1] Short Term (minutes, hour)

[2] Long Term (day, weeks)

Handling/Application Information

Application Examples

- Lens Bonding Applications
- Electronic Device Bonding

Application Techniques

For maximum bond strength the surfaces should be thoroughly cleaned with a 50:50 mixture of isopropyl alcohol and water. Consult manufacturer's directions for use and precautions when using cleaning solvents. Ideal tape application is accomplished when temperature is between 21° and 38°C (between 70° and 100°F) and the bond is allowed to dwell 72 hours. Initial tape application to surfaces at temperatures below 10°C (50°F) is not recommended.

Storage and Shelf Life

Store under normal conditions of 16° to 27°C (60° to 80°F) and 40 to 60% relative humidity in the original packaging, out of direct sunlight. For best performance, use this product within 24 months from date of manufacture.

Automotive Disclaimer

Select Automotive Applications:
This product is an industrial product and has not been designed or tested for use in certain automotive applications, such as automotive electric powertrain battery or high voltage applications, which may require the product to be manufactured in a IATF certified facility, meet a Ppk of 1.33 for all properties, undergo an automotive production part approval process (PPAP), or fully adhere to automotive design or quality system requirements (e.g., IATF 16949 or VDA 6.3). Customer assumes all responsibility and risk if customer chooses to use this product in these applications.

Information

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ISO Statement

This product was manufactured under a 3M quality system registered to ISO 9001 standards.

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