

3M NPE-IATD-1169/-1131/-1170 Double Coated Tape

Preliminary Technical Data
3M Confidential

Jul. 2015

Developmental Status Notice

NPE-IATD-1169/-1131/-1170, (93420, 93425, 93430) are under restricted release for research and development purposes only. These products are subject to modifications, production limitations, or cancellation by 3M at any time without prior notice. Future commercial availability will depend on various factors including customer forecasts and 3M's ability to scale into production.

Product Description:

NPE-IATD-1169/-1131/-1170, (93420, 93425, 93430) are high-performance double-coated tapes specifically designed for use in Mobile Hand-Held devices, particularly for the bonding of Touch-Panel modules to device housings ("Lens" or "Window" Bonding). They incorporate a unique carrier film and pressure-sensitive adhesive that combine to provide an exceptional balance of properties required for these demanding applications.

Product Construction:

3M™ NPE-IATD-1169/-1131/-1170, (93420, 93425, 93430) are black colored, 200, 250, 300µm Double Coated Tapes featuring a shock absorbing carrier with a Polycoated Kraft Release Liner.

Construction Information

	PSA Faceside Adhesive Type Thickness	Carrier Type Thickness	PSA Backside Adhesive Type Thickness	Liner Color, Type Caliper	Total Thickness w/o Liner
NPE-IATD 1169 93420	Acrylic Adhesive, Black 0.0375 mm (1.5 mil)	Shock Absorbing Core, Black 0.125 mm (5 mil)	Acrylic Adhesive, Black 0.0375 mm (1.5 mil)	PCK 0.106 mm (4.2 mil)	0.20 mm (8 mil)
NPE-IATD 1131 93425	Acrylic Adhesive, Black 0.0625 mm (2.5 mil)	Shock Absorbing Core, Black 0.125 mm (5 mil)	Acrylic Adhesive, Black 0.0625 mm (2.5 mil)	PCK 0.106 mm (4.2 mil)	0.25 mm (10 mil)
NPE-IATD 1170 93430	Acrylic Adhesive, Black 0.0875 mm (3.5 mil)	Shock Absorbing Core, Black 0.125 mm (5 mil)	Acrylic Adhesive, Black 0.0875 mm (3.5 mil)	PCK 0.106 mm 4.2 mil)	0.30 mm (12 mil)

Note 1: Faceside (FS) adhesive is on the interior of the roll, exposed when unwound.

Note 2: Backside (BS) adhesive is on the exterior of the roll, exposed when liner is removed.



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

Product number	NPE-IATD-1169 (93420)	NPE-IATD-1131 (93425)	NPE-IATD-1170 (93430)																																																																								
Adhesive	Acrylic	Acrylic	Acrylic																																																																								
Tape Thickness	0.20 mm	0.25 mm	0.30 mm																																																																								
Adhesion 15 min dwell @ RT Modified ASTM D-3330 90 degree peel 2 mil PET backing	<table> <tr> <td></td><td>oz/in</td><td>N/cm</td><td>kg/25.4 mm</td></tr> <tr> <td>SS</td><td>75</td><td>8.2</td><td>2.1</td></tr> <tr> <td>PC</td><td>110</td><td>12.0</td><td>3.1</td></tr> <tr> <td>ABS</td><td></td><td></td><td></td></tr> <tr> <td>Glass</td><td></td><td></td><td></td></tr> <tr> <td>PP</td><td></td><td></td><td></td></tr> </table>		oz/in	N/cm	kg/25.4 mm	SS	75	8.2	2.1	PC	110	12.0	3.1	ABS				Glass				PP				<table> <tr> <td></td><td>oz/in</td><td>N/cm</td><td>kg/25.4 mm</td></tr> <tr> <td>SS</td><td>85</td><td>9.3</td><td>2.4</td></tr> <tr> <td>PC</td><td>155</td><td>17.0</td><td>4.4</td></tr> <tr> <td>ABS</td><td></td><td></td><td></td></tr> <tr> <td>Glass</td><td></td><td></td><td></td></tr> <tr> <td>PP</td><td></td><td></td><td></td></tr> </table>		oz/in	N/cm	kg/25.4 mm	SS	85	9.3	2.4	PC	155	17.0	4.4	ABS				Glass				PP				<table> <tr> <td></td><td>oz/in</td><td>N/cm</td><td>kg/25.4 mm</td></tr> <tr> <td>SS</td><td>100</td><td>10.9</td><td>2.8</td></tr> <tr> <td>PC</td><td>190</td><td>20.8</td><td>5.4</td></tr> <tr> <td>ABS</td><td></td><td></td><td></td></tr> <tr> <td>Glass</td><td></td><td></td><td></td></tr> <tr> <td>PP</td><td></td><td></td><td></td></tr> </table>		oz/in	N/cm	kg/25.4 mm	SS	100	10.9	2.8	PC	190	20.8	5.4	ABS				Glass				PP			
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Shear Strength at RT Modified ASTM D-3654 1000 grams	>10,000 Minutes	> 10,000 Minutes	>10,000 Minutes																																																																								
Shear Strength at 158F (70C) Modified ASTM D-3654 1" x 1/2", 500 grams	>10,000 Minutes	>10,000 Minutes	>10,000 Minutes																																																																								
Impact Shear (25x25 mm Puck) 48hrs@RT ASTM D950	6.93 J	8.30 J	7.32 J																																																																								
Push out (2mmx50mm 2strips) 3M Test Method PMMA	130 N	130 N	133 N																																																																								

Important Notice

The statements and technical information contained herein are based on tests and data which 3M believes to be reliable, but the accuracy or completeness of such statements and technical information is not guaranteed. User is responsible for determining whether a specific 3M product is fit for a particular purpose and suitable for user's method of application. Please remember that many factors can affect the use and performance of a 3M product in a particular application. The materials to be bonded with the product, the surface preparation of those materials, the product selected for use, the conditions in which the product is used, and the time and environmental conditions in which the product is expected to perform are among the many factors that can affect the use and performance of a 3M product. Given the variety of factors that can affect the use and performance of a 3M product, some of which 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 of application.

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