English-US
Last Revision Date: April, 2025
Supersedes: September, 2024

Technical Data Sheet

3M™ Thermoset Heat Activated Film 7110B

Regulatory Info/SDS

Product Description

3M™ Thermoset Heat Activated Film(HAF) 7110B adhesive is a 100 micron tacky film that is laminated at room temperature. It is then cured at low temperature to form a high strength bond.

Product Features

• Adjustable trigger cure starting at 65°C • Room temperature tack • Excellent drop performance • 100% Solids • Halogen compliant

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 Uncured Physical Properties

Attribute Name	Value
Base Resin	Proprietary

Typical Physical Properties

Attribute Name	Test Method	Value
Color		Black
Liner		PET release liner
Liner Thickness		0.075 mm
Total Thickness with liner		0.25 mm
Total Tape Thickness	ASTM D3652	0.1 mm

Typical Cured Characteristics

Attribute Name	Test Method	Value
Young's Modulus		170 MPa [1]
Elongation	ASTM D638, ISO 527	230 % [2]

[1] Tested in accordance with ASTM D638 test method, Type IV dogbone. Jaw separation 100mm/min. Sample removed from a dry condition and tested after equilibriation at 25°C / 50%RH within 2 hours.

[2] Type IV dogbone. Jaw separation 100mm/min. Sample removed from a dry condition and tested after equilibriation at 25°C / 50%RH within 2 hours.

Typical Performance Characteristics

Attribute Name	Test Method	Dwell Time	Temperature	Substrate	Value
180° Peel Adhesion	ASTM D3330	1 h	80 °C (175 °F)	Etched Aluminum	1.7 N/mm
Liner Release			23 °C (73 °F)		Tight Side: 3.9 - 16. Easy Side 1.6 - 3.9.
Tensile Strength					36 MPa [1]

[1] Tested in accordance with ASTM D638 test method, Type IV dogbone. Jaw separation 100mm/min. Sample removed from a dry condition and tested after equilibriation at 25°C / 50%RH within 2 hours.

Overlap Shear Strength

Temperature: 23 °C (73 °F)
Test Method: ASTM D1002, ISO 4587

Substrate	Value
Etched Aluminum	16.2 MPa [1]
Stainless Steel	6.5 MPa [1]
Polycarbonate (PC)	5.6 MPa [1]
GFPC	6 MPa [1]
ABS	5.1 MPa [1]

[1] Cured in an 80 °C oven for 1 hour

Electrical and Thermal Properties

Test Condition: Mid-Point

Attribute Name	Value
Glass Transition Temperature (Tg)	26 °C [1]

[1] Glass Transition Temperature (Tg) determined using DSC Analyzer with a heating rate of 20 °C (68 °F) per minute. Second heat values given.

Handling/Application Information

Surface Preparation

A clean bonding surface is essential for maximum performance. For metals, chemical etching results in ultimate adhesion. Abrading the metal bonding surface with a 3M™ Scotch-Brite™ Abrasive Pad, and cleaning with MEK will improve bond strength. For plastic bonding cleaning the surface is recommended to remove oils, mold release agents, and solid contaminants prior to bonding. Surface roughness (VDI) finish on plastic of 27 to 33 also improves bond strength. For preparing other substrates for bonding contact your 3M application or technical service engineer.

Storage and Shelf Life

The shelf life of 3M™ Thermoset HAF 7110B is 12 months from the date of manufacture when stored in the original packaging materials at 4°C (25°F). Store die cut parts at the same temperature (4°C, 25°F) in a sealed bag prior to use or shipping. During use, material is stable for up to 4 weeks at room temperature (25°C).

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.

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