



November 2019 TECHNICAL DATA SHEET

# Flexel™ FN2100

### **Reactive Film Adhesive**

#### **Material Description**

FN2100 is a reactive, low temperature heat-activated adhesive film specifically formulated for bonding metal substrates like aluminum or stainless steel. FN2100 may also be used for bonding plastic substrates like ABS, PC, pre-treated olefins, textiles, artificial and genuine leather.

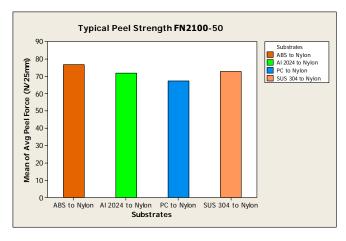
#### **Features & Benefits**

- Low temperature, easy application method
- Excellent adhesion to metals, plastics, textiles
- High fracture toughness, peel and shear strength, while maintaining flexibility
- High heat resistance and chemical resistance after cure
- Emission free, no VOC

	Typical Shear Strength FN2100-50									
Mean of Stress @	2-								Substrates ABS AI 2024 PC SUS 304	
	ABS Al 2024 PC SUS 304 Substrates									

Note: Pulled at crosshead speed of 30 mm/min. Shear area is 25 mm x 12 mm. Samples were pressed for 60 seconds at bond line temperature of 90°C and pressure of 22N/cm². Shear samples were conditioned for 24 hours at 50 % RH and 23 °C before testing.

Typical Properties	Value				
Base	Polymeric film				
Color	Milky White				
Activation Temperature	90°C – 110°C				
Specific Gravity	1.12				
Solid Content	100%				
T <sub>g</sub> by DMA	- 46 °C				
Standard Film Thickness	50 and 100μm				



Note: Peeled at crosshead speed of 300 mm/min. Samples were pressed for 60 seconds at bond line temperature of 90°C and pressure of 22N/cm². Peel samples were conditioned for 24 hours at 50 % RH and 23 °C before testing

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#### **Surface Prep**

Surfaces must be clean and free from dust, fatty substances and release agents. For optimum adhesion, the surface tension of the substrates to be bonded should be more than 38 dynes/cm.

#### **Application Instructions**

- 1. Place adhesive film between substrates.
- 2. Cure Activation Conditions

Temperature: 90°C – 110°C Activation Time: 60s – 90s at temperature

Pressure: 20 to 25 N/cm<sup>2</sup>

We recommend uniform pressure distribution for optimal bonding

3. The glued materials can be further processed immediately after bonding and cooling down (handling, trimming, cutting, etc.).

Optional step: FN2100 adhesive film may be pre-tacked to a substrate prior to processing. To pre-tack FN2100 to a material, use the processing guide lines below:

Bond Line Temperature: 45 to 50 °C
 Pressure: 5 to 20 N/cm²

### Storage & Shelf Life

FN2100 should be stored in a cool, dry place. Shelf life is 6 months from date of manufacture when stored below 30°C.

#### **Health & Safety Precautions**

Please see the Material Safety Data Sheet (MSDS) for proper handling and disposal instructions.

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