Soft Goods Product Data Sheet

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Adhesives, Specialty Films & Seam Tape

Date: September 19, 2013
Product: ***6329*** Version: 1

Product Description:
6329 is a heat activated mono layer adhesive film coated on a silicone release paper. 6329 is available in several different thicknesses.

Product Benefits:

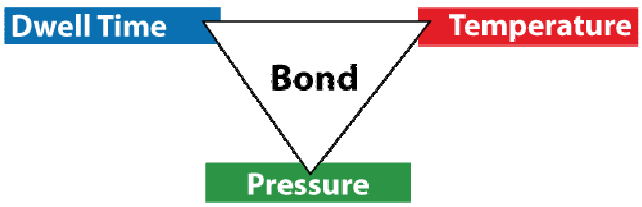
- Excellent adhesion to a wide variety of textiles and solid substrates such as PA, PET, PU, aluminum foils, fiber mats, EVA foam, acrylate coatings, other polyolefins and some rubber compounds.
- Good heat resistance.
- Little to no surface tack at room temperature.
- Can be die cut to different shapes or slit to required width.

Composition: Modified Polyolefin

Thermal & Physical Properties

Color:	Translucent
Density:	24 g/m² per 1 mil of thickness
Nominal Thickness:	1, 2, 3 mil available
Substrate:	Silicone Release Paper (87 g/m², nominal thickness is 3 mil)
Hardness:	87A/38D
Softening Point:	85°C TMA Onset Temperature
Melt Flow Index:	7.0 dg/min *Condition: 175°C / 2.16 Kg Load*

Recommended Bonding Conditions:
6329 requires heat to bond. Heated press, heated roll or heated belt laminator can be used to activate the adhesive. There are three critical factors in achieving good bond strength between substrates, these are:



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The ideal bonding conditions (Temperature, dwell time and pressure) depends on exact substrates and type of equipment. Bemis recommends following conditions as a general guidelines to evaluate 6329 for an application.

Glue Line Temperature[1]:	85 – 150°C
Dwell Time:	20 – 30 seconds
Pressure:	3.5 – 4.5 Bar

[1] Glue Line Temperature (GLT) refers to the temperature of the adhesive in the bonding process. Glue line temperature must be measured to receive accurate machine settings

Note: Recommended bonding conditions will vary between different machinery and fabrics. The recommended conditions stated are a starting point only. Optimal bonding conditions should be established by the factory for the specific application

Bond Strength after Heat Sealing:

6329 is a crystalline polyolefin adhesive; its crystallization rate is moderate at room temperature. This product needs some aging at room temperature to achieve its highest peel strength. Our testing indicates the adhesive achieves its effective peel strength 120 minutes after bonding when stored at room temperature.

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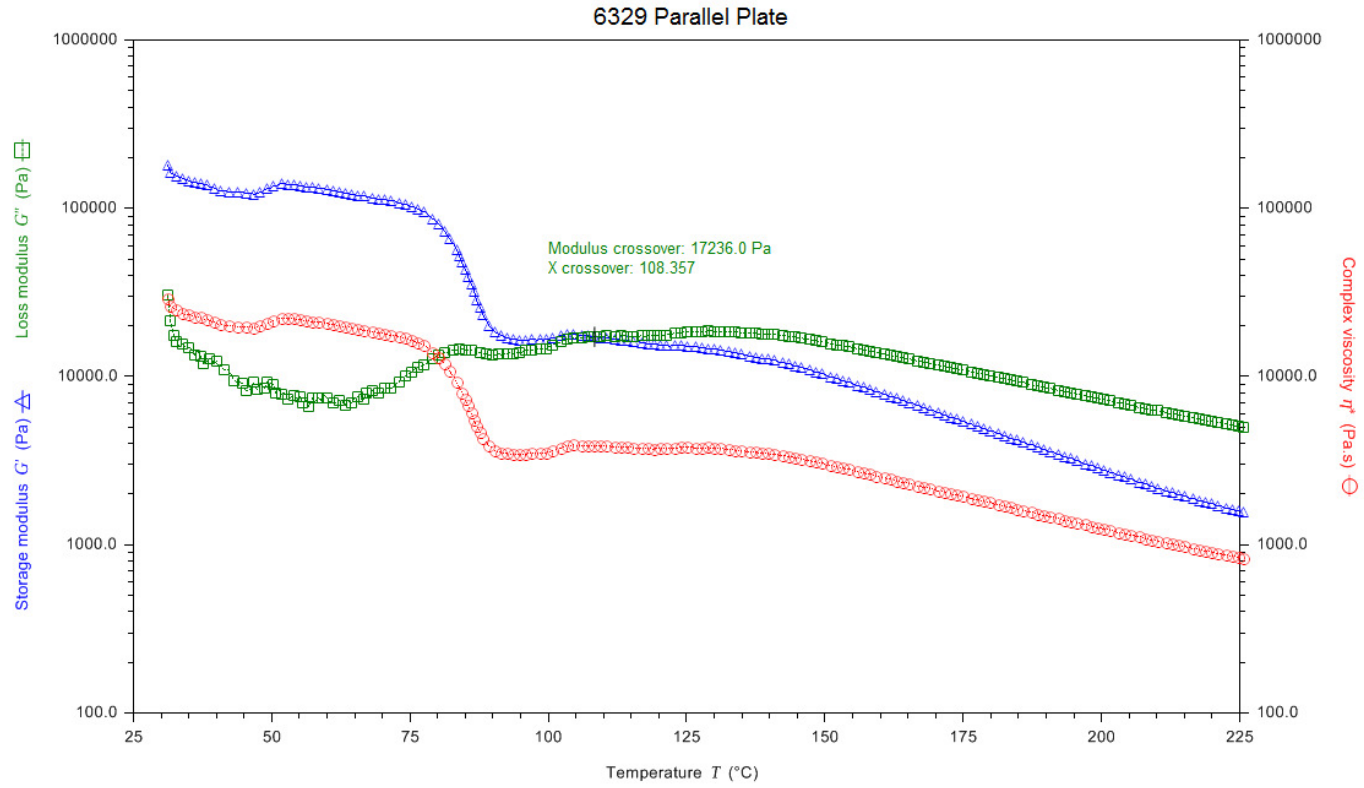
Temperature vs. Viscosity curve:



The plot above shows results for Bemis 6329 tested using a TA Instruments AR2000EX rotational rheometer in dynamic parallel plate configuration. In a dynamic mechanical measurements, a sinusoidal strain is applied to the sample, and a resulting sinusoidal stress is collected. For viscoelastic materials, there is a phase lag between the stress and the strain due to viscoelastic dissipation. Mechanical properties such as modulus and viscosity are represented by elastic and viscous components, for example G' (elastic) and G'' (loss). The total complex modulus or viscosity is G* or η*. The test can be carried out as a function of temperature, test frequency, or strain. In this test of Bemis 6329, we have ramped the temperature at a rate of 5°C/minute while continuously collecting data. As would be expected, the elastic modulus and the viscosity decrease with increasing temperature. By convention, the temperature at which the elastic modulus and loss modulus cross is considered the solid-liquid transition for the material, in this case about 108°C. We would

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therefore expect for 6329 that a temperature greater than 108°C is required for appreciable flow to occur. However, due to the large viscosity drop around 80°C, some flow may be initiated at lower temperatures.

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