3M

Scotch-Weld[™] Hot Melt Comparison on Plastics

Technical Bulletin August, 2006

The 3MTM Scotch-WeldTM Adhesive formulations are excellent candidates for bonding low surface energy (LSE) substrates. We can offer five formulas for extruding or spraying.

- The bonding range/open time is 30-120 seconds.
- Can be applied with 3MTM Scotch-WeldTM Hot Melt LT Applicators.
- Stable in bulk hot melt systems and available in bulk form. (except 3MTM Scotch-WeldTM Polyolefin Adhesive 3796)
- Adheres to difficult-to-bond substrates.
- Provide high heat resistance.
- Available in most of the popular 3MTM Scotch-WeldTM Hot Melt Adhesive sizes.

Comparison Data

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

	3M™ Scotch-Weld™ Polyolefin Adhesive 3731	3M [™] Scotch-Weld [™] Polyolefin Adhesive 3748	3M [™] Scotch-Weld [™] Polyolefin Adhesive 3764	3M [™] Scotch-Weld [™] Polyolefin Adhesive 3796	3M™ Sprayable Hot Melt Adhesive 6111 HT
Viscosity @ 375°F (191°C) (cps)	12,000	5,600	6,900	24,000	3,500
Heat Resistance - 2 Lb. Dead Load	265°F (129°C)	170°F (77°C)	140°F (60°C)	200°F (93°C)	175°F (79°C)
Bonding Range (sec)	30	40	40	50	120
Overlap Shear (PSI)					
PP/PP	550	348	285	260	388
HDPE/HDPE	420	363	389	61	100
Cold Rolled Steel/Cold Rolled Steel	390	221	235	789	365
ABS/ABS	450	193	454	655	372
PVC/PVC	430	272	450	873	417
Peel (PIW)					
PP/Canvas	22	22	5.3	1.4	14.4*
HDPE/Canvas	23	24	6.2	0.1	3.5*
Ball & Ring	315°F (157°C)	290°F (143°C)	190°F (88°C)	244°F (118°C)	212°F (100°C)

^{*}Spray applied

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Precautionary Information

Refer to Product Label and Material Safety Data Sheet for health and safety information before using this product. For additional health and safety information, call 1-800-364-3577 or (651) 737-6501.

Product Use

All statements, technical information and recommendations contained in this document are based upon tests or experience that 3M believes are reliable. However, many factors beyond 3M's control can affect the use and performance of a 3M product in a particular application, including the conditions under which the product is used and the time and environmental conditions in which the product is expected to perform. Since these factors 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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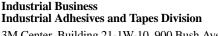
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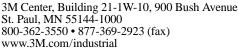
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ISO 9001:2000

This Industrial Adhesives and Tapes Division product was manufactured under a 3M quality system registered to ISO 9001:2000 standards.









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