



# Wire Harness Tape 5077RV

Technical Data Sheet

March 2013

Supersedes 3M™ Beta Tape 5077 technical data sheet dated June 2004

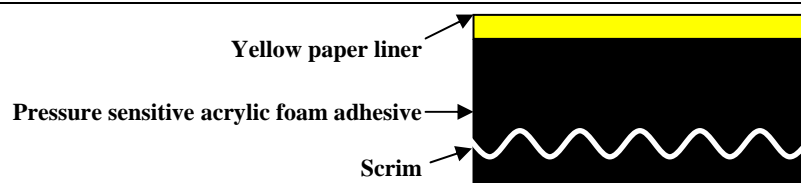
**General Description** 3M™ Wire Harness Tape 5077RV is a double-sided acrylic foam sealing tape with excellent initial adhesion, heat resistance and durability compared to conventional butyl sealing tape. Common uses include bonding to rough or highly irregular surfaces, sealing and other applications where a highly conformable tape is required. 3M Wire Harness Tape 5077RV has been developed using the technology of 3M™ Acrylic Foam Tape, which has been used for vehicle interior and exterior part attachment for more than forty years.

3M Wire Harness Tape 5077RV offers the following features, advantages and benefits:

- Demonstrates excellent initial adhesion and static performance against substrates that have uneven surfaces
- Can be applied to many substrates used for automotive parts, often without special surface treatment
- Exhibits good workability due to high tape modulus, ease of cutting and wet-out
- Helps reduce the possibility of staining the bonded surfaces because it is made of a high molecular weight acrylic material

**Applications** 3M Wire Harness Tape 5077RV is used in the attachment of wire harness assemblies to automobile headliners, attaching interior trim, bonding impact relaxation pads to door panels, bonding of cellular urethane, polystyrene and polypropylene parts and similar applications.

**Product Construction**



<b>Physical Properties</b>	Tape No.	5077
	Color	Black
	Thickness	0.5 mm (0.02 in)

**Shelf Life** One year from the date of receipt by customer when stored at 4°C-38°C(40°F-100°F) and 0-95% relative humidity. Optimum storage conditions are 22°C (72°F) and 50% relative humidity.

**Roll Width and Length** Please contact a 3M representative to learn about availability of roll widths and lengths.

**Performance Properties** Performance tests are run using standard test procedures in 3M laboratories. These values presented are typical and not to be used for specification purposes. Peel values depend on test conditions and substrates.

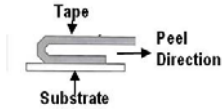
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## 180° Peel Strength

The tape is peeled off at a 180° angle and the adhesion to the substrate is measured with a tensile strength test machine after exposing the tape to the following conditions:

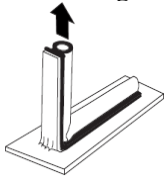


Test Conditions	Substrate	5077RV (N/cm)	Butyl Tape
Initial state 23°C for 24 hours	Painted steel	11.0	7.8
	EPDM*	12.0	5.9
Normal state 23°C for 24 hours	Painted steel	12.0	7.8
	EPDM*	12.0	5.9
High temperature 80°C for 24 hours	Painted steel	5.0	0.4
	EPDM*	5.0	0.4
Heat aging 80°C for 14 days	Painted steel	16.0	9.8
	EPDM*	15.0	5.9
Warm water immersion 40°C for 14 days	Painted steel	16.0	10.8
	EPDM*	15.0	5.9
Wax remover immersion 1 hour	Painted steel	10.5	6.8
	EPDM*	11.5	4.9

\* Adhesion promoter was applied to the EPDM surface.

## 90° Peel Strength

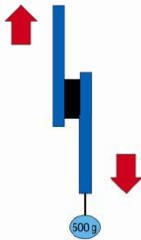
### Adhesion to Painted Steel



Test Conditions	Temperature	5077 (N/cm)	Butyl Tape
Immediate state	5°C	10.0	4.9
30 seconds after tape lamination	23°C	13.5	7.8
	40°C	13.5	7.8

## Static Shear

Static shear tests are run with 10 mm wide x 25 mm long tape. EPDM is applied to painted steel and exposed to the tested temperature for 24 hours.



Temperature	5077 (k/Pa)	Butyl Tape
23°C	300.0	100.0
40°C	200.0	50.0
60°C	150.0	10.0
80°C	75.0	0.0

## Precautionary Information

Please refer to the product label and SDS for health and safety information before using.

## Contact Information

The information provided in this technical document is intended as a guide for this product. For more information or help in selecting a 3M product for an application, please contact your 3M technical service representative or call 1-800-328-1684.

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