



# TECHNICAL ASSISTANCE

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## **MACtac Adhesive Products for Bonding Rogers Corp. PORON® Foams**

### **Introduction**

The following table lists several of MACtac pressure sensitive adhesive constructions that were tested for adhesion to three PORON® foams frequently used in wireless communication equipment. The adhesive constructions listed represent several different adhesive formulations in either an unsupported or polyester reinforced construction. Although this list of products provides a variety of thickness', adhesives and product constructions from which to choose, it does not necessarily represent all of the MACtac products that could be successfully used. Also, the choice of these three PORON® foams was meant only to be representative of typical grades used.

### **Adhesion Performance**

All of the products listed in the following table provided either a partial or complete foam-tearing bond after as little as 24 hours dwell time. With longer dwell times such as 72 hours, a complete foam-tearing bond was obtained with all products.

### **Bonding Procedures**

As with all pressure sensitive adhesive products, good bonding procedures are important. The adhesive should be laminated to the foam using firm pressure to permit good intimate contact. With dwell time, the adhesive will be able to flow on its own a certain amount and increase this contact. For very firm adhesives or in situations where limited lamination pressure is possible, the addition of supplemental heat can be used to induce the adhesive flow at the time of bonding.

### **Testing Procedure**

A strip of PORON® was bonded to an aluminum substrate using one of the adhesive products listed in the attached table. This laminate was allowed to dwell for 24 hours at 72° F./ 50% R.H. The foam was then peeled from the aluminum substrate at an angle of 90 degrees and at a rate of 12 i.p.m. The strength of the bond always exceeded the strength of the foam.

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**Telephone Number 800 321 0011**

## Adhesion to PORON<sup>®</sup> Cellular Urethane Foams

		Foam Number:	92-25021	30-25035	50-30017
		Foam Description:	Extra Low Modulus	Very Low Modulus	High Modulus
		Foam Thickness:	1/64”+	1/32”	1/64”
<b>Product</b>	<b>Thickness</b>	<b>Description</b>			
IF-2012A	2 mils	Unsupported Acrylic	Foam Tear	Foam Tear	Foam Tear
IF-2013A	3 mils	Unsupported Acrylic	Foam Tear	Foam Tear	Foam Tear
IF-2015A	5 mils	Unsupported Acrylic	Foam Tear	Foam Tear	Foam Tear
IB-2100	5.2 mils	Polyester Supported Acrylic	Foam Tear	Foam Tear	Foam Tear
IB-2130	3.7 mils	Polyester Supported Acrylic	Foam Tear	Foam Tear	Foam Tear
IB-1101	4.5 mils	Polyester Supported Rubber	Foam Tear*	Foam Tear*	Foam Tear*

**Test conditions:** 90 degree peels at 12 i.p.m. Aluminum test substrate. **24 hours dwell of adhesive On foam and test substrate @ 72 F./50% R.H.**

\* *Partial foam tear after 24 hours dwell. Complete foam tear after 72 hours dwell.*

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