

Adhesives for use with STYROFOAM® brand plastic foam

The question regarding what adhesives should be used with STYROFOAM in any given application is a question that is often asked by customers, architects, and suppliers. It is a question that must be addressed from many points of view.

T Clear Corporation recognizes that there is a vast array of high quality adhesives suitable for use with expanded polystyrene foam. Many of these adhesives are formulated to perform as a general purpose adhesive in many different applications with a variety of substrates. Others are for very specialized purposes. It is our belief at T Clear that the ability to make a recommendation for one of these adhesives over the other would require more information than is reasonably available to us. The continuous performance quality of an adhesive is the responsibility of the manufacturer. Therefore, the only recommendation we can rightfully make is to use an adhesive that the manufacturer claims as compatible with polystyrene foam.

The user needs to be aware of a few basic considerations when selecting an adhesive. Foremost on this list is the adhesive's chemical compatibility with the polystyrene foam. The adhesive must not attack and cause cavitations of the polystyrene foam during the curing process. Open time and cure are other areas of consideration. Open time is the amount of time the user has from adhesive application to assembly completion. Cure time refers to the time period from the assembly to when the bond reaches optimum strength. The user should also consider the environment of the bond after it is cured. Does it need to withstand freeze/thaw cycles that would be common in the outdoors during the winter? Will water or high moisture levels affect the adhesive during or after it is cured? Will the adhesive need to remain pliable after cure to allow for slight movement in the assembly? The manufacturer generally considers these variables plus many others when formulating an adhesive. It is the responsibility of the user to determine if the adhesive chosen is suitable for the intended application.

T Clear does not recommend a particular adhesive for the use with STYROFOAM brand plastics. However, previous laboratory evaluations have shown certain adhesives to perform well with STYROFOAM. These adhesives demonstrated little or no cavitations to polystyrene foam at cure temperatures below 100 ° F. The bond strength of these adhesives after cure was greater than the tensile strength of the foam.

The following is a list of these adhesives and their manufacturers:

DAP BEATS the NAIL	DAP Inc.	(800) 543-3840
DAXCEL 161D Foamastik	Dacar Products Co., Inc	(412) 922-2536
DAXCEL Foamgrab PS Adhesive	Dacar Products Co., Inc	
Henry #117	W. W. Henry Co.	(800) 232-4832
Henry #317	W. W. Henry Co.	
INSTA-STICK	The Dow Chemical Co.	(888) 868-1183
LN 601, 901 and 915	MACCO Adhesives SCM Corp.	(800) 634-0015
QB-300	Ohio Sealants, Inc.	(800) 321-3578
PL Premium	Ohio Sealants, Inc.	
PL300	Ohio Sealants, Inc.	
OLYBOND	OMG	(800) 633-3800
Pliodeck	Ashland Chemical	(800) 322-6580
Sonneborn 200	ChemRex, Inc.	(800) 433-9517
Titebond	Franklin International	(800) 347-4583

Latex-base, non-flammable adhesives.
One-part urethane-based nonflammable adhesive.