



# F16 FLEXIBLE ADHESIVE

540 North Main Street • Manchester, CT 06042 • USA • Tel: (860) 643-7188 • Fax: (860) 643-5669

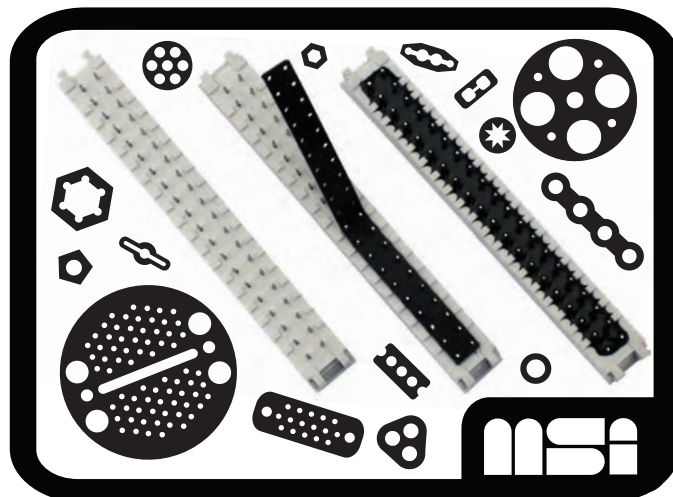
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**MULTI-SEALS F16 POLY-FORMS** are flexible pre-shaped adhesives designed for bonding diverse materials, including metals, plastics, and glass. When heated, F16 has initial flow properties that allow the adhesive to spread into narrow interfaces and around complex features. When the adhesive sets, any further flow is restricted. The pre-shaped copolymer prevents drips and dispensing inconsistencies typical of liquid adhesives. Adhesive placement is highly consistent seal to seal and bond to bond. The durability and flexibility of F16 Poly-Forms facilitate manual and automated handling for increased production rates. F16 can be pre-shaped in multiform configurations to accommodate a broad range of applications. F16 also passes NASA outgassing specifications.

**PROCESSING INSTRUCTIONS:** The temperature and time required to process F16 depend upon component and fixture materials, mass, and the location of the Poly-form within the assembly. For most applications, 350°F (175°C) for 20 minutes will stabilize flow. Lower processing temperatures and shorter schedules are also available, as shown in the chart below.

For most applications, we recommend the use of forced convection ovens for processing F16. When using static air ovens, recommended processing times should be doubled. Recommended cure schedules are for the adhesive only. Place thermocouples throughout the oven to determine the influence of component mass on oven temperature and recovery time, and adjust cure schedule as required to ensure full cure.

**STORAGE:** Store F16 in closed containers with desiccant. Refrigerate to maintain flow. After refrigeration, allow material to reach ambient temperature before opening containers to prevent condensation and moisture contamination. Handle cold parts with care to avoid breakage from bending.



## TYPICAL PROPERTIES of F16 (pre-cure)

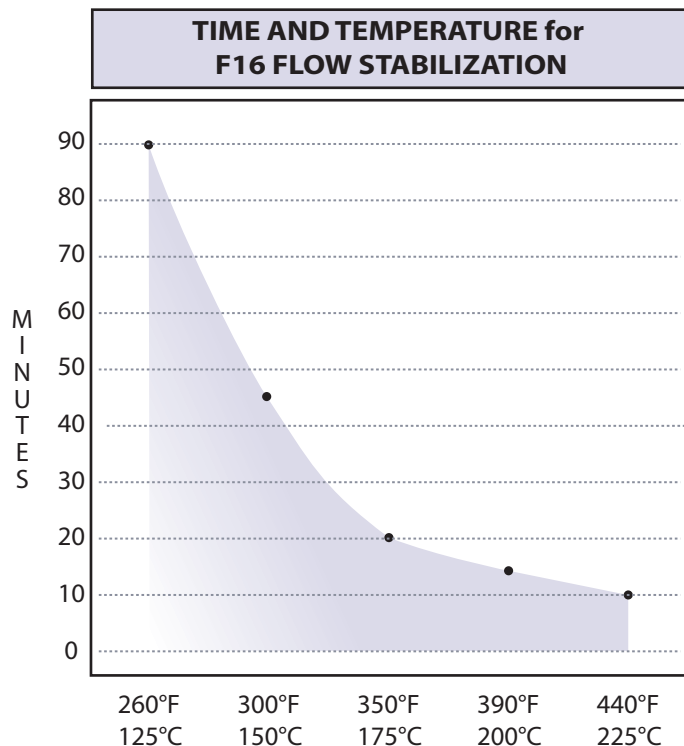
Softening Temperature	100°F/38°C
Tack Temperature	145°F/63°C
Melt Temperature	232°F/111°C
<b>prepared at 325°F/163°C for 30 minutes</b>	
Water Absorption (weight %, 24 hrs)	0.42
Shore D Hardness @ 70°F/21°C	56

## TYPICAL ADHESIVE STRENGTHS of F16 in psi prepared at 325°F/163°C under 5 psi for 30 minutes

Lap Shear, Stainless Steel to Stainless Steel @ 70°F/21°C	2,700
Facewise Tensile, Stainless to Stainless, Abraded @ 50°F/10°C	3,900
Facewise Tensile, Stainless to Stainless, Abraded @ 70°F/21°C	3,400
Facewise Tensile, Stainless to Stainless, Abraded @ 90°F/32°C	2,700
Facewise Tensile, Stainless to Stainless, Abraded @ 110°F/43°C	2,100
Facewise Tensile, Stainless to Stainless, Abraded @ 130°F/54°C	1,450

## OUTGASSING per ASTM E 595

Total Mass Loss (TML) % [Spec. Limit: 1.0%]	0.23
Collected Volatile Condensable Material (CVCM) % [Spec. Limit: 0.10%]	0.07
Water Vapor Recovered (WVR) %	0.01



PLEASE NOTE: Data expressed are averages of test data. Upper and lower limits have not yet been determined. This information is based on data obtained by our own research and is considered accurate. However, no warranty is expressed or implied regarding the accuracy of these data, the results to be obtained from the use thereof, or that any such use will not infringe any patent. This information is furnished upon the condition that the persons receiving it shall make their own tests to determine the suitability thereof for their particular purpose.