

MIL-F-83671 (SA)
INT AMENDMENT-2
30 MARCH 1990

INTERIM AMENDMENT
TO
MILITARY SPECIFICATION

FOAM-IN-PLACE PACKAGING MATERIALS, GENERAL SPECIFICATION FOR

This interim amendment was developed by Navy Ships Parts Control Center, Mechanicsburg, Pa 17055-0788, based upon currently available technical information. It is mandatory for use by all Navy activities in procurement. Recommendations for changes should be forwarded to the preparing activity at the address shown above.

The Air Force Packaging Evaluation Agency, HQ AFLC/DSTZ, Wright-Patterson AFB; has authorized the preparation and use of this interim amendment for Navy activities only.

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3.4 Hydrolytic Stability. Where specified, materials shall meet the requirements of 3.4.1 or 3.4.2 as applicable (see 6.2 and 6.5).

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3.15 Dynamic Cushioning Properties (Classes 2 and 3). The peak G-static stress curves for Class 2, Grades A and B, shall conform to the shapes of the appropriate generalized curves presented in Figures 1 and 2, within the specified tolerance bands when tested in accordance with 4.5.3.10. Five peak G-static stress points, approximately equally spaced, shall be required to establish conformance of the Class 2, Grades A and B materials. Two points shall be established within 10 percent of the static stress values at the extremities of the curve and one at the approximate minimum peak acceleration level point. Three peak G-static stress points shall be required to establish conformance of the Class 3 material, one at .03 psi ($20.7 \pm 3.5 \times 10$ Pa), one at .08 psi ($55.2 \pm 3.5 \times 10$ Pa) and one at .14 psi ($10.3 \pm .35 \times 10^2$ Pa). The 2nd through 5th drop averages for peak acceleration shall not exceed 85 G's at .03 psi, 50 G's at .08 psi, and 42 G's at .14 psi.

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6.2 Ordering Data. The following ordering data shall be specified:

- d. Hydrolytic Stability - specify if required (see 6.5).

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6.3 Dynamic Cushioning. The requirements of 3.15 are intended to ensure procurement of a consistently uniform product of a quality attainable by most of the industry. The curves presented in Figures 1 and 2 should be considered as quality assurance requirements only, not as design criteria. For design purposes, complete cushioning data in the form of peak acceleration versus static stress curves can be obtained from other sources, such as MIL-HDBK-304. The acceptable cushioning curves for Class 2, Grades A and B foams are shown in Figures 1 and 2, respectively. Class 2, Grades A and B, and Class 3 foams are not based on specific material densities. Formulations and differences in component ratios and sizes of open and closed cells have been found to be more significant than density.

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6.5 Hydrolytic Stability. Some polyurethane foams, esters in particular, may not pass this test, but satisfactorily meet all other requirements. Where hydrolytic stability may be of concern, particularly for ester based foams, procuring activities may specify this requirement.

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Figure 3. Delete.

Preparing activity

Navy - SA

Project No. 8135-N625

Custodian:

Navy - SA

User Activities:

Navy - EC, MD, SA, YD