

HH-I-1972/5  
August 12, 1981

## FEDERAL SPECIFICATION

### INSULATION BOARD, THERMAL, POLYURETHANE OR POLYISOCYANURATE FACED WITH PERLITE BOARD ON BOTH SIDES OF THE FOAM

This specification was approved by the Commissioner, Federal Supply Service, General Services Administration, for the use of all Federal agencies.

This specification forms a part of the latest issue of Federal Specification HH-I-1972/GEN.

#### 1. SCOPE AND CLASSIFICATION.

1.1 Scope. This specification covers the requirements for faced thermal insulation boards composed of rigid cellular polyurethane or polyisocyanurate faced with perlite board on both sides of the foam. This specification does not cover cryogenic applications. For intended use see 6.1 of HH-I-1972/GEN.

1.2 Classification. The thermal insulation boards covered by this specification is composed of a rigid cellular polyurethane or polyisocyanurate foam faced with perlite insulation board on both sides of the foam and meets the physical requirements of 3.3, table I.

#### 2. APPLICABLE DOCUMENTS

2.1 Latest issue of HH-I-1972/GEN and documents referenced therein.

2.2 Other publications. The following documents form a part of this specification to the extent specified herein. Unless otherwise indicated, the issue in effect on date of invitation for bids or request for proposal shall apply.

American Society for Testing and Materials (ASTM) Standards:

C728 - Perlite Thermal Insulation Board.

(Application for copies should be addressed to the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19102.)

#### 3. REQUIREMENTS

3.1 Materials. The thermal insulation boards shall conform to the material requirements of the basic specification HH-I-1972/GEN and 3.1.1.

3.1.1 Facing materials. Facing material incorporated in the design of the faced thermal insulation board, shall conform to the material and physical properties requirements specified in ASTM C728.

FSC 5640

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3.2 First article (see HH-I-1972/GEN).

3.3 Physical properties. The thermal insulation boards, when conditioned and tested in accordance with 4.5 through 4.5.7 of HH-I-1972/GEN shall meet the physical properties specified in table I.

TABLE I. Physical properties

Property	Value	Test Reqmt. Para.
Compressive strength (psi) minimum	16.0	4.5.3
Dimensional stability (L) at -40 deg F/ambient RH, (percent change) maximum	2.0	4.5.4
(W)	2.0	
Dimensional stability (L) at 158 deg F/97 % RH, (percent change) maximum	4.0	4.5.4
(W)	4.0	
Dimensional stability (L) at 200 deg F/ambient RH, (percent change) maximum	4.0	4.4
(W)	4.0	

4. QUALITY ASSURANCE PROVISIONS (See HH-I-1972/GEN)

5. PREPARATION FOR DELIVERY (see HH-I-1972/GEN)

6. NOTES

6.1 Intended use. The insulation material covered by this specification is intended for use as thermal insulation boards in roofs and other applications where the insulation will not be subjected to temperatures below -40 deg F or above 200 deg F. The service temperature will vary depending on the application. This specification does not cover cryogenic applications. Consult manufacturer for recommendations and physical properties of faced polyurethane or polyisocyanurate insulation boards in cryogenic conditions.

6.2 Availability. Size - 3 feet by 4 feet  
Thickness - 2.7 to 3.7 inches

## CUSTODIANS:

Army - ME  
Navy - YD  
Air Force - 99

## Review activity:

Army - CE

## CIVIL AGENCY COORDINATING ACTIVITIES:

COM - NBS  
GSA - FSS, PCD

## Preparing activity:

Navy - YD

Project No. 5640-0281

NOTICE  
OF VALIDATION

HH-I-1972/5  
NOTICE 1  
7 February 1991

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FACED WITH PERLITE BOARD ON BOTH SIDES OF THE FOAM

HH-I-1972/5, dated 12 August 1981, has been reviewed and determined to be valid  
for use in acquisition.

CUSTODIANS:

Army - ME  
Navy - YD  
Air Force - 99

CIVIL AGENCY COORDINATING ACTIVITIES:

COM - NIST  
GSA - FSS/7FXE

Review activity:

Army - CE  
Air Force - 84

Preparing activity:

Navy - YD