

Insulation Insights

ASTM C 1289

QUESTION:

How does ASTM C 1289 classify foam insulation?

ANSWER:

ASTM C 1289 is a standard developed by ASTM members that classifies the design requirements for a specific material, product, system and service. All faced rigid polyisocyanurate manufacturers are required to manufacture and test to the standards of ASTM C1289. This standard classifies faced polyiso panels by type, class, and grade.

TYPE

Refers to the facer material that is bonded to the foam. Below is a list of common types of facers used in the commercial wall market.

Type	Description
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- | | |
|----|--------------------------------------------------------------------------------|
| I | Foil Facer |
| II | Glass Mat Faced |
| V | Plywood or OSB on one side, Fibrous Felt or Glass Fiber Mat on the other side. |

CLASS FOR TYPE I MATERIALS

For foil faced polyiso the "Class" designation refers to whether or not the foam core is glass fiber reinforced.

Class	Description
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|---|--------------------------------------------------------------|
| 1 | Non-Reinforced Foam Core |
| 2 | Glass Fiber Reinforced Foam Core or Non-Reinforced Foam Core |

CLASS FOR TYPE II MATERIALS

For glass mat faced polyiso the "Class" designation refers to the material used in conjunction with the glass mat. Currently, all Type II polyiso products for commercial wall applications fall into the Class 2 category.

Class	Description
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|---|---------------------------------------------------------|
| 2 | Polymer Bonded Glass Fiber Mat both sides, Coated Glass |
| 3 | Glass Mat Only |

GRADE

Refers to the product's compressive strength for permeable faced products. Compressive strength is reported in terms of PSI. Several polyiso products are available in multiple grades.

Grade	Description
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|---|--------------------------------------------|
| 1 | 16psi min |
| 2 | 20psi min (Standard for most Xci products) |
| 3 | 25psi min |

POLYISO PRODUCT CLASSIFICATIONS

Type I	Type II	Type V
Foil facers both sides	Polymer Bonded Glass Fiber Mat both sides	Plywood or OSB on one side Glass Fiber Mat on the other side
Class 1 or Class 2	Class 2	
<ul style="list-style-type: none"> ▪ Xci Foil ▪ Xci Foil Class A ▪ Xci Foil Class A Plus ▪ Xci 286 ▪ Xci ConCast* 	<ul style="list-style-type: none"> ▪ Xci CG ▪ Xci CG Class A Plus* 	<ul style="list-style-type: none"> ▪ Xci NB ▪ Xci Ply ▪ Xci Ply Class A*

*25 psi Standard

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