

## Compressive Strength of AEROFLEX EPDM<sup>™</sup> Insulation

A common question that we receive about our EPDM elastomeric insulation is about its *compressive strength (resistance)*.

ASTM C165 “Standard Test Method for Measuring Compressive Properties of Thermal Insulations” is applicable to rigid insulation types such as cellular glass, polystyrene, polyisocyanurate, phenolic, and polyimide for insulating mechanical system applications such as HVAC, refrigeration, and plumbing.

According to ASTM C534 “Standard Specification for Preformed Flexible Elastomeric Cellular Thermal Insulation in Sheet and Tubular Form”, compressive strength/resistance is not referenced as a performance property for closed-cell elastomeric insulation.

For mechanical system applications such as HVAC, refrigeration & plumbing piping, ductwork and equipment, our focus is on core performance properties that are required by ASTM C534, such as thermal conductivity, maximum use temperature, surface burning characteristics, water vapor permeability/absorption, and corrosiveness are primary considerations when selecting the best elastomeric insulation for thermal and condensation control purposes.

For these reasons, Aeroflex USA has elected not to publish compressive strength. However, as a means of comparison, the compressive strength/resistance of AEROFLEX EPDM<sup>™</sup> at 25% compression/deformation is approximately 3.0 psi.

To learn more, click [here](#).

### Sources:

ASTM C165 “Standard Test Method for Measuring Compressive Properties of Thermal Insulations”  
ASTM C534 “Standard Specification for Preformed Flexible Elastomeric Cellular Thermal Insulation in Sheet and Tubular Form”

National Insulation Association, Insulation Materials Specification Chart, <https://insulation.org/wp-content/uploads/2024/04/NIA-Spec-Chart-April-2024.pdf>