



# Tech Data Sheet

## IMPAXX™ 500 Energy Absorbing Foam

IMPAXX™ 500 Energy Absorbing Foam is a higher-performing, and lower-cost alternative to traditional energy absorbing solutions such as polyurethane and expanded polypropylene bead foams.

IMPAXX foam is a highly engineered, extruded, thermoplastic foam that utilizes Dow proprietary process technology to maximize efficiency and minimize *weight*. It is a strong, *low-density*, closed-cell foam.

IMPAXX foam is highly suited for applications in a variety of industries requiring enhanced safety features through energy absorbing countermeasures.

Color: Blue

Sizes available: sheets, basic blocks and custom-fabricated parts.

Physical Properties <sup>1</sup>	Test Method	Direction	Value U.S. / Metric
Density	ASTM D 3575, Suffix W, Method B DIN 53420	N/A	2.7 pcf 43 Kg/m <sup>3</sup>
Compression Strength @ 10%	ASTM D1621, 23°C	Vertical	Psi / kPa 74.3 / 512
@ 25%		Vertical	78.9 / 544
@ 50%		Vertical	88.7 / 612
Compression Strength @ 25%	ASTM D1621, -15°C	Vertical	Psi / kPa 82.3 / 567
@ 50%		Vertical	95.7 / 660
Compression Strength @ 25%	ASTM D1621, 60°C	Vertical	Psi / kPa 71.4 / 492
@ 50%		Vertical	72.3 / 498
Thermal Stability (linear change @ 80°C)	ASTM D 3575, Suffix S or DIN 53431	N/A	< 1%
Flammability**	FMVSS 302		Pass
Fogging	SAE J1756		100 Fog Number
Water Absorption	ASTM D3575, Suffix L	N/A	< 3%

(1) The data presented for this product is for unfabricated foam. While values shown are typical of the product, they should not be construed as specification limits.

\*\* Results from this test do not represent performance under actual fire conditions.

-See reverse side for additional properties and product information.

IMPAXX™ foam is globally available. It is an environmentally-friendly, recyclable material and meets governmental flammability requirements for interior automotive components. IMPAXX foam is a non-CFC, non-HCFC, non-HFC material.

IMPAXX foam is available in a variety of densities and sizes and offers low weight to EA performance characteristics required for automotive applications. IMPAXX foam weighs less than other energy absorbing foams of similar strength. IMPAXX™ foam characteristics remain stable at cold temperatures including -30°C.

Typical automotive applications include:

- Headliner Head Impact Countermeasures
- Pillar Head Impact Countermeasures
- Side Impact Door Countermeasures
- Bumper Systems
- Front Impact Bolster Systems
- Lower Leg Impact Protection
- Structural Panels
  - Load floors
  - Sun shades
  - Sun visors

IMPAXX foam has multiple attachment methods such as: pressure-sensitive tapes and hot-melts, mechanical screws and clips, heat-staking, sonic welding, plus others.

### Safety and Handling Considerations

Material Safety Data (MSD) sheets for IMPAXX™ 500 foam are available from Dow. MSD sheets are provided to help customers satisfy their own handling, safety, and disposal needs. IMPAXX energy absorbing foam meets the requirements of the U.S. Clean Air Act Amendments.

The fabrication of plastic foam can result in the generation of dust. Dust resulting from sawing, filing, and sanding of plastic parts may cause irritation to the eyes and upper respiratory track. Workers should wear appropriate eye protection and protective clothing.

### Disposal

Do not dump into sewers, on the ground, or into any body of water. The preferred disposal method is to send to a licensed recycler, reclaimer, or incinerator. All disposal methods must be in compliance with Federal/State/Provincial and local laws and regulations. As a service to its customers, Dow can provide names of information resources to help identify waste management companies and other facilities which recycle, reprocess or manage chemicals or plastics, and that manage used drums. Contact the Dow Customer Service Center for further details.

### Combustibility

IMPAXX™ 500 foam is combustible and should not be exposed to flame or other ignition sources.

### Customer Notice

Dow encourages its customers to review their applications of Dow products from the standpoint of human health and environmental quality. To help insure that Dow products are not used in way for which they are not intended or tested, Dow personnel are willing to assist in dealing with ecological and product-safety considerations. Your Dow representative can arrange the proper contacts.

### Product Features

As the properties listed on the reverse side suggest, IMPAXX™ 500 Energy Absorbing foam offers good strength, vibration and shock absorbency and water resistance characteristics.

IMPAXX™ Energy Absorbing foam meets the requirements of the U.S. Clean Air Act Amendments. It is easily fabricated, and non-abrasive.

### For Additional Information or Technical Support

For information on products, design assistance and testing services available from Dow, in North America call 248-391-6300; in Europe, call +33 388598552.

**CAUTION: The foam is combustible and should not be exposed to flame or other ignition sources.**

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