Solef® 80 000 e-PVDF
High Performance Foams
**Solef® 80 000 e-PVDF Bead Foam**

New Solef® 80 000 e-PVDF Foam is an innovative lightweight expanded material that retains the key characteristics of pure polyvinylidene fluoride (PVDF):

- Fire resistance
- Chemical resistance
- UV resistance
- Thermal stability
- Purity
- Low surface energy

and combines these inherent characteristics with:

- Lightweight (density down to 50 g/L)
- Improved thermal insulation
- Increased resilience
- Repeated impact resistance

Manufactured using novel expansion technology, Solef® 80 000 e-PVDF Foam is free of additives and is produced without chemical blowing agents, preserving its inherent purity and inertness characteristics. Solef® 80 000 beads can be molded into complex three-dimensional shapes via steam chest molding, and this imparts new characteristics previously unobtainable using existing materials.

Another advantage of having a three-dimensional part molded in one step, is that (with consistent geometry) the properties are exactly the same in every direction; thermal conductivity and resilient response are the same in 3 dimensions.

Applications that demand high purity and those which require aggressive chemical, fire, UV, and radiation resistance rely on PVDF foam for insulation, sheeting, and other structures.

**Solef® 80 000 e-PVDF Foam:**

- Passes the Aircraft Flame Tests [FAR 25.853(a), FAR 25.853(d), FAR 25.856(a)]
- Resistance to flame (vertical bunsen)
- Resistance to flame (radiant panel)
- Heat release rate and total heat release
- Flame propagation
- Specific optical smoke density (AITM 2.0007) flaming and non flaming mode
- Toxic Components on Combustion Products (AITM 3.0005) flaming and non flaming mode
- Passes ASTM E84 surface burning, smoke and flame spread
- Resistant to fungi (ASTM G21)

Solef® 80 000 e-PVDF Foam shows a temperature performance range between –100 to 120 °C (depending on the application).

**Typical Industries Include:**

- Aircraft
- Automotive
- Bioscience
- Marine
- Oil & Gas
- Pharmaceutical
- Pulp & Paper
- Semiconductor
- Water treatment

Solef® 80 000 e-PVDF Foam is exclusively molded by JSP, a world leader in engineered plastic foams. Their expertise in foam processing ensures that the most complex design challenges can be met successfully yet cost effectively via traditional production techniques.

**Thermal insulation is best in class for polymer foam**

as low as 0.035 W/mK.

**Thermal conductivity of Solef® 80 000 e-PVDF**

![Thermal conductivity graph]

**Quasi-static Compression Performance**

Cube 50 mm, PVDF Foam 100 g/l, ISO 844

![Compression performance graph]

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