

Umbilical Pads

Umbilical pads are semi-rigid foams which are developed based on polyurethane (PU) polymeric systems having energy absorbing capabilities. These are integral skin foams that can be used for absorbing shock and impact energy hence they are used for controlling vibration and for acoustic insulation. These pads are semi flexible water blown foam system produced by the polymerization reaction between hydroxyl bearing polymeric compounds called polyols and di or polyisocyanates in the presence of catalysts.

Umbilical pads are designed to absorb impact energy of the separating umbilical lines used in launch vehicles. These foam pads of required size and dimensions are moulded with clamps at the corners for assembling the pads at required locations in the launch pad. These shock absorbing pads can also be utilized for transportation of electronic packages.

Technological Highlights of the product if any

1. Semi flexible and shock absorbing foam
2. RT curable
3. Can be moulded to the required shape and size

Typical Properties

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|-----------------------------|---|
| Nature of foam | Semi-flexible PU foam with blue coloured fire-retardant coating |
| Dimensions | 1200 mm x 1200 mm x 100 mm |
| Density (uncoated) | 55 - 80 kg/m ³ |
| Flame test with coating | Self-extinguishing within 5-6 sec |
| % Ball rebound with coating | 20 - 30 |
| Shelf life | 5 years |