

AUPEX TECH-LINE FOAMS



The AUPEX Tech-line Advantage

Fire Safety At Its Best

The AUPEX Tech-line range of materials especially designed for use as passenger cushions in mass transit are available in three different material options :

- Polyurethane
- Silicone
- Polyester Fiber

All three material variants of fire retardant cushions of the AUPEX Techline from the house of FlexoFoam are compliant with the FST requirements of EN 45545 R21 HL3 without the need for a fire barrier and take care of not only the passenger safety but also of passenger comfort with **high resilience and low compression set**. The cushions are offered in a wide range of densities in moulded, bun and sheet forms. At FlexoFoam, we regularly test our passenger cushioning materials against various global railway standards for flame, smoke, and toxicity tests. This ensures we provide high-quality solutions regardless of your project's location.

All products under FlexoFoam's AUPEX portfolio are designed and developed for applications in industries requiring high reliability and durable performance, such as railways, automobiles and aerospace.

Helping make journeys safe and comfortable



Polyurethane Foams

Technical Expertise for Design & Application Support

Polyurethane foams are available in moulded, block/bun and sheet forms.

With our in-house raw material formulation expertise teamed with our 3D designing team and in-house mechanical and fire testing laboratories, we are able to not only customise our polyurethane foam cushions as per your design requirements but also customise the foam as per the mechanical and fire properties compliant with the required standard as prescribed for the end application.





Parameter	Test Method	Unit	Value
Density	DIN EN 29073-1	Kg/m³	95
leat Release Rate	ISO 5660-1:25 kWm ²	MARHE kW/m ²	34.5
Smoke Generation	EN ISO 5659-2:25 kWm ²	D _{S max} dimensionless	18
Toxicity	EN ISO 5659-2:25 kWm ²	CIT _{G max} at 8 min dimensionless	0.028

EN 45545 R21 HL3 Test Results

AUPEX Polyurethane



Polyester Fiber Cushions

Sustainable Materials - 100% Recyclable Cushions

With a fully automated production line, we specialise in the manufacture of thermal bonded polyester cushions.

The cushions are compliant with EN45545 R212 HL3 and are a sustainable choice for environment friendly projects which require 100% recyclable products at the end of their life cycle with a zero discharge and zero wastage production process.

Polyester fiber cushions are free of any chemical processing, are water and oil repellent and provide excellent stability in humid conditions and conditions of high temperatures variations.





AUPEX Polyester



Fire Barrier

Fire Barrier for additional fire safety of coach interiors

AUPEX Fire Barrier felts can be used for covering and wrapping a variety of coach interior components to meet special fire protection requirements in buses, trains, ships and aircrafts. The technical felts act as protective layer blocking fire and providing a protective barrier.

Parameter	Test Method	Unit	Value
Thickness	ISO 9073 - 2	mm	6.0 ± 0.5
Mass	ISO 9073 - 1	GSM	250
Tensile Strength a) Machine Direction b) Cross Direction	ISO 9073 - 3	N/cm	128.0 154.40
Elongation at 100N a) Machine Direction b) Cross Direction	ISO 9073 - 3	%	63.40 53.80
Tear Resistance a) Machine Direction b) Cross Direction	ISO 9073 - 4	Ν	150 206
Heat Release Rate	ISO 5660-1:25 kWm ²	MARHE kW/m ²	30.39
Smoke Generation	EN ISO 5659-2:25 kWm ²	D _{S max} dimensionless	12.60
Toxicity	EN ISO 5659-2:25 kWm ²	CIT G max at 8 min dimensionless	0.06
Abrasion Resistance (9kPa)	ISO 12947 - 2	-	80,000 cycles

AUPEX Tech-line Benefits

Passenger Safety

- No dripping of burnt foam
- Low toxicity providing time for escape
- Low smoke generation maintaining visibility
- No propagation of fire

Reduced Maintenance Costs

- Longer service life & reduced tendency to lose form of AUPEX foams ensure significant savings in replacement cost
- No revenue loss due to downtime/ overhauling



Durability

- Dimensional stability
- Resilient to mechanical fatigue
- Temperature resistant
- Low compression set

Customisation

- All foams are fully customisable for dimensional adherence in moulded or sheet forms
- Customisation for mechanical and fire properties





For further information on our products please get in touch with us at :

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