

Information

BISCO® MF1-55 (medium) seat cushion foam provides reliable comfort, longevity, and safety. MF1-55 foam allows engineers to optimize seat designs, providing exceptional passenger comfort all the while reducing weight and size. MF1-55 foam is a durable seat cushion material that utilizes proprietary silicone technology to deliver a product which maintains firmness and thickness longer than traditional polyurethane foams.

Physical

PROPERTY	TEST METHOD	TYPICAL VALUE
FOAM		
Firmness (IFD, ILD) @ 2 inch (50 mm), lbf (N)	ASTM D3574-B1	55 (245) ± 10 (45)
Density, pcf	ASTM D1056	4.0 min / 8.0 max
Compression Set, %	ASTM D1056 22 hrs @ 50% / 100°C (212°F)	5% max
Tensile Strength, psi	ASTM D412	10 min
Elongation, %	ASTM D412	30% min
Antimicrobial	ASTM G21	Pass (No Growth)
Tear Strength, lbf/in	ASTM D3574 Test F	2.0 min
DURABILITY		
Comfort Factor 65% / 25% IFD	ASTM D3574 Method B	2.5 min
Jounce/Squirm, Height Loss %	Squirm: 180 lb / 40°C (104°F) (±20°) 5 min cycles/min/250K cycles	5% max
Jounce/Squirm, Firmness Loss % (25% IFD)	Jounce: 20% deflection 100 cycles/min/250K cycles	20% max
Constant Force Pounding, Height Loss %	ASTM D3574 Test I3 Proc B	15% max
Constant Force Pounding, IFD Loss %	750N 80K Cycles 250mm Plate w/25mm Radius	15% max
Resistance to Deterioration, Steam Autoclave CFD Loss % Change	ASTM D3574 Test J1	20% max
Resistance to Deterioration, Dry Heat Age CFD Loss % Change	ASTM D3574 Test K	20% max

MF1 Foam Long-Life Warranty: When design appropriately in a rail seating application, MF1 foam is warranted for up to 10 years for firmness and thickness retention. This ensures long-term comfort for passengers.

Convertors and suppliers of die cut gaskets, tape, sheeting, fabrications, machined plastic components, rubber mouldings, extrusions and adhesives.



GLOBAL FIRE SAFETY CERTIFICATIONS			
REGION	FIRE STANDARD	TEST METHOD	MF1-55
BRITAIN (UK)	BS 6853	BS 6853 (Table 9)	Cat 1a (composite/fireblock) *
EUROPE	EN45545 – R21	ISO 5660	HL3
		ISO 5659 (Ds, CIT)	
FRANCE	STM-C-708	NFF 16-101 (M – F Rating)	M2 F1
		ISO 3582	Pass (No Ignition)
		ISO 2440 (ISO 3582)	Pass (No Ignition)
GERMANY	DIN 5510	DIN 5510-2	S4, SR2, ST2
		Annex C / ISO 5659-2	Fed < 1
NORTH AMERICA	NFPA 130 / 49 CFR 238	ASTM D3675	Pass
		ASTM E162	
		ASTM E662	
		ASTM C1166	
		SMP 800C	
		ASTM E1354	Reference Only
POLAND	PN-K-02508	PN-K-02511	Class P2
		PN-K-02508	Class A
		PN-K-02501	Class D1
		PN-93/K-02505	Class T1
INTERNATIONAL UNION OF RAILWAYS	UIC 564-2	UIC 564-2 App 7	Class B
		UIC 564-2 App 8	Class A
		UIC 564-2 App 15	Class A
VARIOUS OTHER		FAR 25.853a (12 sec)	Pass
		FAR 25.853a (60 sec)	
		BSS 7239	
		FMVSS302	

*When tested within an appropriate construction including a fireblock

Notes:

- All metric conversions are approximate.
- Additional technical information is available.

The information contained in this Data Sheet is intended to assist you in designing with BISCO Foams. It is not intended to and does not create any warranties, express or implied, including any warranty of merchantability or fitness for a particular purpose or that the results shown on the Data Sheet will be achieved by a user for a particular purpose. The user should determine the suitability of BISCO Foams for each application.

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