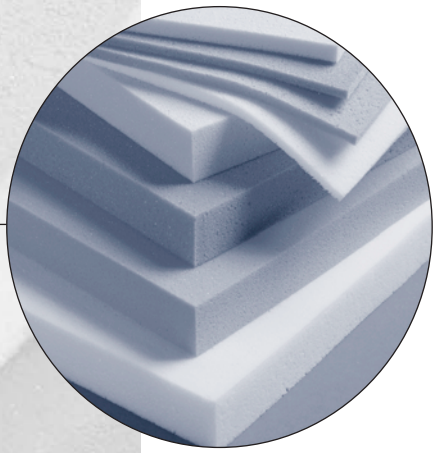
CONFOR® Foams

Materials Summary Sheet

9



Offering solutions for a wide range of applications such as...

- **Vehicle seating**
- **Positioning and support devices**
- **Pillows and bedding**
- **Sports and medical padding**
- **Footwear cushioning**
- **Electronics packaging**

E-A-R™

Aearo Technologies • a 3M company

CONFOR® Foams

CONFOR ergonomic foams, E-A-R's medium density, open-celled polyurethane foams, offer a unique combination of physical characteristics, high energy absorption properties and temperature-softening behavior. Soft and flexible, they are suitable for highly diverse applications, from shock isolation in electronics equipment to padding and cushioning in medical devices. RoHS compliant, electronic-grade formulations are available, with no silicone emissions.

CONFOR foams exhibit unusually low compression set for their low-rebound, highly damped properties, and provide excellent energy absorption—up to 97 percent without bottoming out.

CONFOR foams soften on contact with a warm surface—allowing uniform pressure distribution and firm, yet fluid, support. Because the open-celled foams are breathable, non-irritating in dermal contact, and help dissipate moisture and perspiration away from the body, they are ideal for medical and body contact cushioning applications.

Cushioning—CONFOR foams can provide flexible protection in a variety of cushioning applications, from body contact padding to electronics packaging.

Shock absorption—With their excellent energy absorption characteristics CONFOR materials offer a range of impact protection and isolation for dynamic loads, while maintaining consistent static load performance.

Vibration isolation—CONFOR foams' unique combination of slow recovery and high energy absorption allows the materials to offer effective damping and vibration isolation.

Typical Properties

Property	CF-47 Green	CF-45 Blue	CF-42 Pink	CF-40 Yellow	CFNT Yellow
Density Nominal kg/m³ (lb/ft³) ASTM D3574	93 (5.8)	93 (5.8)	93 (5.8)	93 (5.8)	80 (5.0)
Flammability UL 94	Listed HBF	Listed HBF	Listed HBF	Listed HBF	Listed HBF
FMVSS-302	Meets	Meets	Meets	Meets	Meets
FAR 25.853(a) Appendix F Part I (a) (1) (ii) (12 sec)	Meets	Meets	Meets	Meets	Meets
California Flame 117	Meets	Meets	Meets	Meets	Meets
Ball Rebound (%) ASTM D3574	≤1.0	≤1.0	≤1.0	<1.0	<1.0
Thermal Conductivity—K Value ASTM C177 W/m•K (BTU in/hr ft² F)	.040 (0.28)	.040 (0.28)	.040 (0.28)	.040 (0.28)	.040 (0.28)
Compression Set (%) ASTM D3574 22 hr at 70C (158F) Compressed 25%	0.3	0.4	0.9	0.6	1.8
Compressed 50%	0.6	0.6	1.0	2.4	6.0
Indentation Force Deflection ASTM D3574 Test B1 (modified) 25% Deflection for 12" x 12" x 2" sample: 22C (72F) at 50% Relative Humidity Newton (lbf)	191 (43)	151 (34)	116 (26)	67 (15)	36 (8)
Tensile Strength kPa (psi) ASTM D3574 51 cm/min (20 in/min) at 22C (72F)	174 (25.2)	154 (22.3)	125 (18.1)	101 (14.6)	41 (6.0)
Tear Strength kN/m (lbf/in) ASTM D3574 51 cm/min (20 in/min) at 22C (72F)	0.96 (5.5)	0.81 (4.6)	0.60 (3.4)	0.28 (1.6)	0.26 (1.5)
Elongation (%) ASTM D3574 51 cm/min (20 in/min) at 22C (72F)	98	108	109	135	149
RoHS Compliant	No	No	No	No	No

The data listed in this materials summary are typical or average values based on tests conducted by independent laboratories or by the manufacturer. They are indicative only of the results obtained in such tests and should not be considered as guaranteed maximums or minimums. Materials must be tested under actual service to determine their suitability for a particular purpose.

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