

S.A.E. SPECIFICATIONS	F-1	F-3	F-5	F-7	F-10
GENERAL PROPERTIES					
Structure	3-dimensional fibrous structure - non-fraying - non-raveling				
Composition, % Wool, Min.	95	85	95	80	95
Method of Production	Rolls	Rolls	Rolls	Rolls	Rolls
Density, Lbs./Sq. Yd., 1" TK	16	15.6	12.24	12.24	8.48
Standard Thickness Range, In.	1/8 to 1	1/8 to 1	1/8 to 1	1/8 to 1	1/8 to 1
Standard Width, In.	60	60	60	72	72
Color ⁽¹⁾	White	Grey	White	Grey	White
PHYSICAL PROPERTIES					
Specific Gravity	0.342	0.33	0.262	0.262	0.181
Normal Oper. Temp. Range, °F.	-80 to +200	-80 to +200	-80 to +200	-80 to +200	-80 to +200
Ther. Cond. (70F) BTU/HR/Sq.Ft./°F/1" ⁽²⁾	0.36	0.35	0.3	0.3	0.3
Ther. Expansion	0	0	0	0	0
Air Perm., CFM/Sq.Ft./0.5"H ₂ O @ 1/16"TK	30-Oct	15-35	20-50	20-50	75-150
Liquid Absorption					
% Absorp By Weight (1.0 Sp. Gr. Liquid)	>175	>190	>250	>225	>400
% Absorp By Volume (porosity)	74	76	80	80	88
Capillarity, Wicking Height, In.,					
575 SSU @ 70°F, Oil	4	4	3	3	2.5
Coeff of Friction ⁽³⁾	0.37	0.37	0.37	0.37	0.37
Vibration Absorption ⁽⁴⁾					
Static Load Bearing Cap/Unit Area	High	High	Medium	Medium	Low
Dynamic Stress Endurance	High	High-Medium	High	Medium	High
Noise Reduction Coeff @ 1" ⁽²⁾	0.5	0.52	0.58	0.58	0.58
Flame Resistance	Can be flameproofed to meet government, industrial and municipal specifications				
MECHANICAL PROPERTIES					
Ten Str., PSI Min.	500	400	400	250	225
Elongation, % @ 100 PSI, Avg. Value	13	16	16	21	33
Burst Str. (Mullen), Avg. PSI, 1/8" TK	250	200	175	125	75
Split Resist, lbs./2" Width, Min.	33	22	18	12	8
Hardness, Shore A Dur., Avg. Range 10	30-40	30-40	20-30	20-30	15-25
Compressibility, PSI @ 10% Def.	21	13	6	6	4
Compression Def.	99	99	99	99	99
Vibration Disintegration	None	None	None	None	None
Collapse When Wet	None	None	None	None	None
Flexibility; Fold Endurance	1/4" thick felt exceeds 3 million 180° flexes				
Abrasion Resistance ⁽⁵⁾	Excellent	Excellent	Good	Good	Fair
CHEMICAL PROPERTIES					
Sunlight Aging; Oxidation	None	None	None	None	None
Solvent Resist and Stability in Oil	Excellent	Excellent	Excellent	Excellent	Excellent
Acid Resist, Dilute	Excellent	Excellent	Excellent	Good	Excellent
Acid Resist, Concentrated	Good-Fair	Good-Fair	Good-Fair	Fair	Fair-Good
Alkali Resist, Dilute	Fair	Fair	Fair	Fair	Fair
Alkali Resist, Concentrated	Poor	Poor	Poor	Poor	Poor
Biological Stability	Can be treated for mildew, moisture, moth, and vermin resistant applications				
FABRICATING METHODS					
Die Cutting; Stripping; Skiving					✓
Laminating; Coating; Impregnating					
Stitch, Staple, Perforate, Cement					
Machining; Grinding; Drilling					-
Molding and Shaping					
Extruding			-	-	-
APPLICATIONS					
	Bearing seals, polishing, printing, wick lubrication and precision uses where a dense highgrade felt with max. durability is required.	Automotive, aircraft and machine components and similar to 16R1 and 2 where slightly lower density and quality is acceptable.	Lubricators, wipers, shock dampeners and uses where a durable resilient felt is required.	Dust Shields, oil and grease containers; similar to 12R1 and 2 where a lower grade may be used.	Fluid storage and delivery, resilient padding, plug filters for gas and air.