



F-13 SPECIFICATIONS

Commercial Standard Grade	9R4
SAE Number	F-13
NTA Number	18R3
GENERAL PROPERTIES	
Minimum Wool Content	75%
Density (1")	8.48 lbs/sq yd
Standard Thickness Range	1/8" to 1"
Standard Width	72"
Color	Gray
PHYSICAL PROPERTIES	
Specific Gravity	0.18
Thermal Condition (70F)	0.24 btu / hr /sq ft / °F / in
Thermal Expansion	0
Air Perm (1/16")	75-150 cfm / sq ft / 0.5" H2O
Liquid Absorption by weight by volume	>350% (1.0 sp gr) 88%
Capillarity (wicking height, 575 SSU, 70F)	2.5
Coefficient of Friction	0.37
Vibration Absorption Static load bearing cap/unit area	Low
Dynamic Stress Endurance	Low
Noise Reduction Coef (1")	0.64
MECHANICAL PROPERTIES	
Tensile Strength (min)	75 psi
Elongation 100% (100 psi)	37
Mullen Bursting Strength (1/8")	50 psi
Split Resistance (min)	2 lb/2" width
Hardness Range Shore A	15-25
Compressibility (10% defl.)	3 psi
Recovery (within 1 min after 10% defl.)	99%
Abrasion Resistance	Fair
CHEMICAL AND ENVIRONMENTAL PROPERTIES	
Effect of Sunlight and Oxidation	None
Solvent Resistance and Stability in Oil	Excellent
Acid Resistance, dilute	Fair
Concentrated	Fair
Alkali Resistance, dilute	Fair
Concentrated	Low
Temperature Range	-80°F to +200°F
TYPICAL USES	
Grease and oil retention, protective lining and insulation for freight cars, trucks, dunnage, uses similar to 9R2 and 9R3 where less durability and lower grade felt is acceptable.	

