

GLASS NAME: S-8071

Equivalent to Sandia's CON-2

GLASS TYPE: Alkali Phosphate

APPLICATIONS: Typically used for aluminum sealing.

AVAILABLE FORMS: Cast Block, Rolled Ribbon, Air Quenched

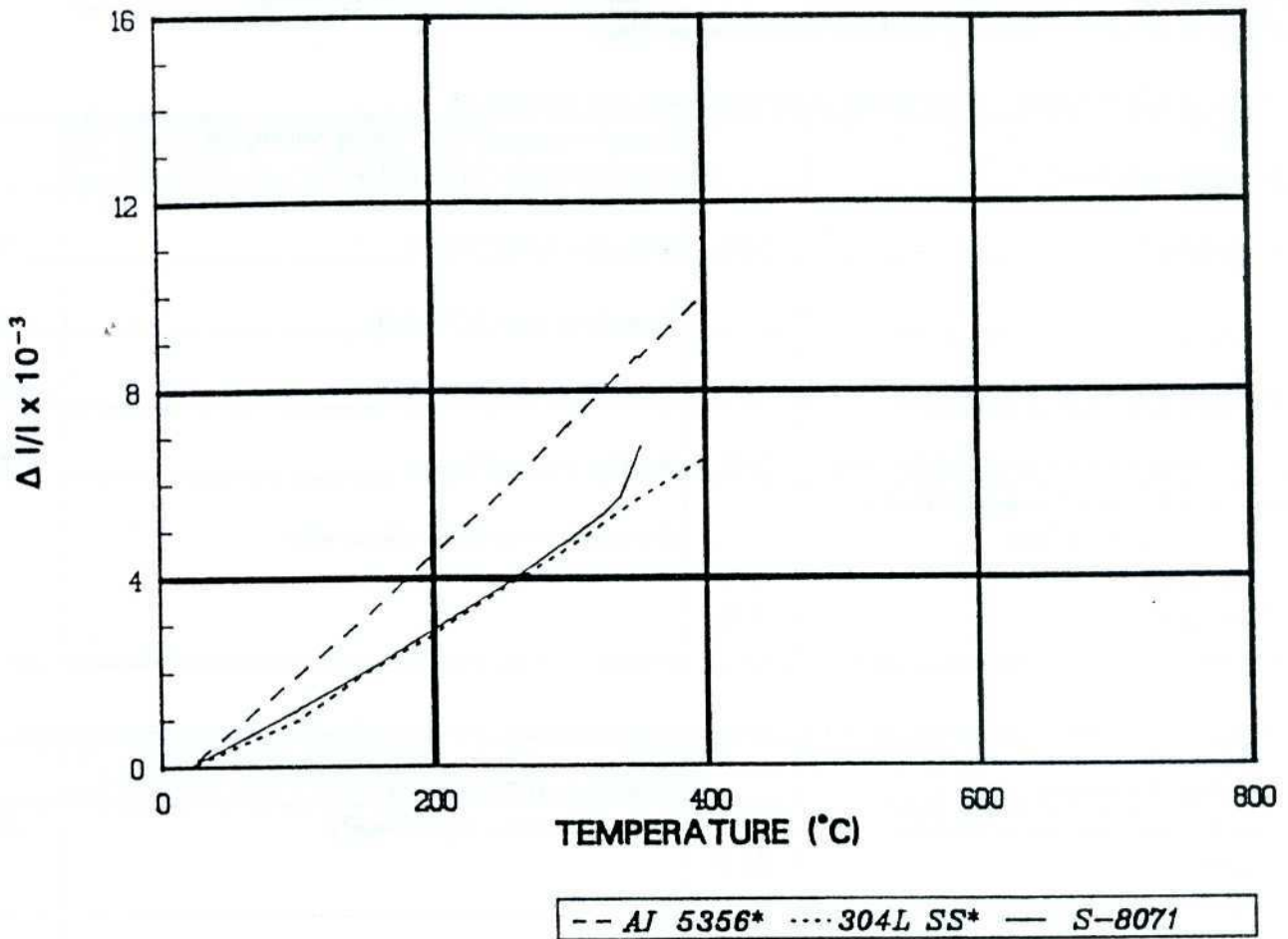
Physical Properties		Temperatures (°C) Corresponding to Characteristic Viscosities	
Density (g/cm ³)	3.00	Strain Point (10 ^{14.5} Poise):	332
		Annealing Point (10 ¹³ Poise):	343
Transformation Temperature, T _g (°C):	341	Softening Point (10 ^{7.6} Poise):	412
Thermal Conductivity at 90°C, λ [W/(m·K)]:	0.53	Working Point (10 ⁴ Poise):	473
Linear Coefficient at Thermal Expansion, α (x10 ⁻⁷ /K)		See expansion curves on reverse side:	
α _{20° to 300°}	177		
α _{20° to T_g}	190		

Electrical Properties		Mechanical Properties	
Log of Volume Resistivity in ohm·cm at 150°C:	10.3	Young's Modulus, E (10 ³ N/mm ²):	48
at 250°C:	8.1		
		Poisson's Ratio, μ:	0.28
Dielectric Properties for 1MHz at 25°C		Specific Thermal Stress,	
Dielectric Constant, ε _r :	8.0	$\varphi = \frac{\alpha \cdot E}{1 - \mu}$ [N/(mm ² K)]	1.19
Dissipation Factor, tan δ(x10 ⁻⁴):	55		
		Knoop Hardness (N/mm ²) corresponding to 1.9613 N load:	

Optical Properties	
Index of Refraction at 587nm, n _d :	1.534
Stress Optical Coefficient at 546 nm, κ = 10 ⁻⁶ mm ² /N	

SCHOTT

EXPANSION CURVE OF COMPONENTS OF A SEAL



An example of S-8071 application is the formation of compression seals with 304L Stainless Steel feed throughs and Aluminum housings.

*Expansion values for the metal component have been provided by Sandia National Laboratories.