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COMPARISON OF PHYSICAL PROPERTIES

1/4" Materials	°F Normal Service	°F Extreme Service	°F Max Thermal Shock	°F Max Thermal Gradient	In/In/°F Coefficient of Thermal Expansion	PSI Design Tensile
VYCOR® 96% Silica Code 7913	1652	2192	1800	396	4.2 X 10-7	1000
Tempered PYREX® Borosilicate	500	554	580	194	18 X 10-7	2000
PYREX® Borosilicate Code 7740	446	914	270	97	18 X 10-7	1000
Soda-Lime Tempered Code 0080	428	482	400	88	52 X 10-7	3000
Soda-Lime Code 0080	230	860	90	29	52 X 10-7	1000
PYROCERAM®	1202	1382	1400	450	3.3 X 10-7	1500

NORMAL SERVICE TEMPERATURE: No breakage from excessive thermal shock is assumed. Non-abused glass should last indefinitely.

EXTREME SERVICE TEMPERATURE: The glass will be very vulnerable to thermal shock and physical degradation. Recommendations in the range are based on mechanical stability considerations only. Test should be made before adopting final designs.

THERMAL SHOCK: The physical shock glass undergoes when evenly heated to the above listed temperature, then plunged into water at 50°F without breakage.

THERMAL GRADIENT: The difference in temperature between the two glass surfaces that will cause 1000 PSI tensile stress on the cooler surface.

COEFFICIENT OF THERMAL EXPANSION: The relative increase in size of a material when heated.