



## NGK BERYLCO PLATE PRODUCTS

**PLUS, SUPRA and ULTRA products are designed with one goal in mind: Improved profit through improved performance.**

## PERFORMANCE ATTRIBUTES OF **NGK BERYLCO** PLATE PRODUCTS

BERYLCO® **PLUS**, **SUPRA** and **ULTRA** Products are excellent mold alloys for the plastic industry used as injection molds and tooling for blow molds. They are known to produce superior quality plastic parts with minimum total production costs, compared to other competing mold materials. This is due to its optimum combination of hardness, wear resistance, thermal fatigue and thermal conductivity.

Plate products are available in three grades from two alloy systems:

- **PLUS** is a higher conductivity, lower hardness beryllium copper alloy.
- **SUPRA** is a medium conductivity, medium hardness beryllium copper alloy.
- **ULTRA** is a lower conductivity, higher hardness beryllium copper alloy.



*The machinability and polishability of Berylco® PLUS, SUPRA and ULTRA Plate meet cosmetic industry requirements.*

**NGK BERYLCO** · PLATE PRODUCTS  
WORLD-CLASS QUALITY FOR A GLOBAL MARKETPLACE

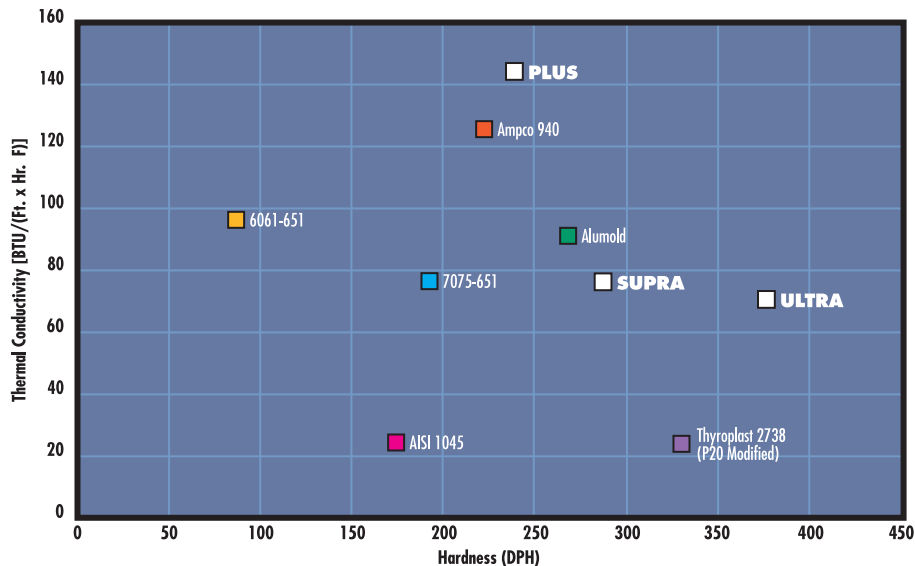
# Berylco PLUS, SUPRA and ULTRA Performance Attributes.

TYPICAL PROPERTIES						
	Thermal Conductivity [BTU/(ft.hr.°F)]	Coefficient of Thermal Expansion (in./in./°F)	Modulus of Elasticity (psi)	Rockwell Hardness B or C scale	Tensile Strength (ksi)	% Elongation
<b>PLUS</b>	145	10.0 x 10 <sup>-6</sup>	19.2 x 10 <sup>6</sup>	B95 - 102	115	3%
<b>SUPRA</b>	75	9.7 x 10 <sup>-6</sup>	18.5 x 10 <sup>6</sup>	C25 - 32	170	15%
<b>ULTRA</b>	60	9.7 x 10 <sup>-6</sup>	18.5 x 10 <sup>6</sup>	C36 - 42	182	7%

## Mold Material Characteristics

NGK TRADE NAME	CDA ALLOY NUMBER	TRADE NAME	TYPICAL CHARACTERISTICS
<b>PLUS</b>	17510   RB 95-102	<b>ProTherm</b>	High Conductivity / Low Hardness
<b>SUPRA</b>	17200   C25-32	<b>Mold Max Lo Hard</b>	Medium Conductivity / Medium Hardness
<b>ULTRA</b>	17200   C36-42	<b>Mold Max Hi Hard</b>	Low Conductivity / High Hardness

## Mold Material Comparison (Thermal Conductivity – Hardness)



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