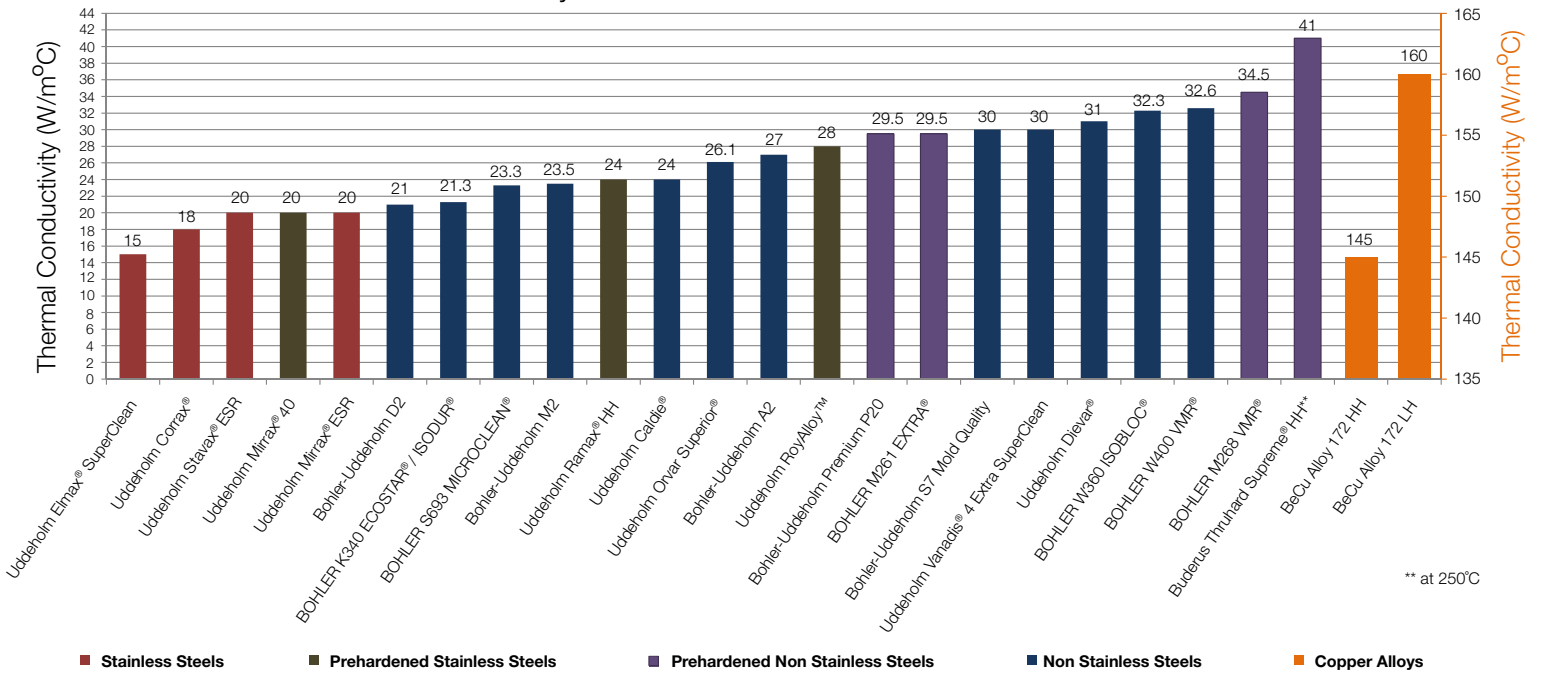


This graph depicts the thermal conductivity for the steels used for plastic molding applications at 200 degrees C/390 degrees F. The values are compared to those of Beryllium Copper 172.

The higher the thermal conductivity, the higher the heat exchange between the mold and the plastic. It should be noted that stainless steel, while thermal conductivity is lower than that of medium alloyed steel, can show negligible differences in heat flux if corrosion is present on the nonstainless steel, or the plastic mold wall thickness is large.

Thermal Conductivity of Selected Plastic Mold Steel at 200°C/390°F



## Beryllium Copper Alloy 172

BeCu Alloy 172 is a high-strength beryllium copper alloy made for plastics molding applications. Its main properties include:

- high thermal conductivity
- good corrosion resistance
- good polishability
- good wear resistance
- good resistance to galling
- excellent weldability



Supplied in the following conditions:  
Low hard (28-32 HRC)  
High hard (36-40 HRC)

Stock sizes:  
Alloy 172 High Hard:  
Plate:  
.375" thru 5.00"  
Bars:  
.480" -7.00"

Alloy 172 Low Hard:  
Plate:  
0.500" thru 1.75", 2.50" , and 5.00"

Plates of both tempers are approximately 20" wide for thicknesses thru 2.25". The 2.50" and thicker sizes are approximately 24" wide.

Available sizes:  
Plate:  
0.500" - 4.00" - Stock in 0.250" Increments  
4.000" - 6.00" - Stock in 0.500" Increments  
6.000" - 8.00" - Stock in 1.000" Increments

Bar:  
0.500" - 4.00" - Stock in 0.125" Increments  
4.000" - 6.00" - Stock in 0.250" Increments  
6.000" - 8.00" - Stock in 0.500" Increments