

## Wall Colmonoy COLMONOY® 6 Nickel-Base Hard-Surfacing Alloy With Chromium Boride

Categories: [Metal](#); [Metal Matrix Composite](#); [Nonferrous Metal](#); [Nickel Alloy](#)

**Material Notes:** **Description:** The original, nickel-base hard-surfacing alloy, containing diamond-like chromium borides (and carbides). Extremely resistant to wear, especially under corrosive conditions. Low coefficient-of-friction. Can be hot-formed. Finished by grinding.

**Applications:** For shafts, sleeves, valve trim.

Method of Application: Oxyacetylene, DC Electric Arc, GTAW, Spraywelder

Information provided by Wall Colmonoy Corporation.

**Vendors:** No vendors are listed for this material. Please [click here](#) if you are a supplier and would like information on how to add your listing to this material.

Physical Properties	Metric	English	Comments
Density	8.10 g/cc	0.293 lb/in <sup>3</sup>	
Mechanical Properties	Metric	English	Comments
Hardness, Rockwell C	56 - 61	56 - 61	
Processing Properties	Metric	English	Comments
Processing Temperature	1030 °C	1890 °F	fusing temperature
Component Elements Properties	Metric	English	Comments
Boron, B	3.0 %	3.0 %	
Carbon, C	0.70 %	0.70 %	
Chromium, Cr	14.3 %	14.3 %	
Iron, Fe	4.0 %	4.0 %	
Nickel, Ni	73.75 %	73.75 %	As Balance
Silicon, Si	4.25 %	4.25 %	

Some of the values displayed above may have been converted from their original units and/or rounded in order to display the information in a consistent format. Users requiring more precise data for scientific or engineering calculations can click on the property value to see the original value as well as raw conversions to equivalent units. We advise that you only use the original value or one of its raw conversions in your calculations to minimize rounding error. We also ask that you refer to MatWeb's [terms of use](#) regarding this information. [Click here](#) to view all the property values for this datasheet as they were originally entered into MatWeb.