

**Description**

Deloro® 55 is a hard Ni-based self-fluxing alloy with good corrosion resistance, abrasion resistance, and deposition characteristics. It has intermediate properties between Deloro® 50 and Deloro® 60. The alloy microstructure is complex and consists of hard borides and carbides in a nickel rich matrix. Applications include engine valves and screws for extrusion of plastics.

Table 1: Typical Composition (weight %)

B	C	Co	Cr	Fe	Ni	Si
2.7	0.6	<1.0	13.0	4.0	Bal.	4.0

Table 2: General Properties

True Density	8.0 g/cc
Melting Range	965-1040 °C (1770-1900°F)
Typical Hardness of Weld Deposit	55 HRC

Table 3: Typical Powder Properties

Shape	Spherical
Common Size Range	45-250 µm
Apparent Density	4.5 g/cc
Hall Flow Rate	15 sec/50g

Table 4: Applicable Specifications

UNS N99645	AWS A5.21 ERNiCr-B	MIL-R-17131
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