



STRATA INTERNATIONAL LTD.

SUPERIOR PRODUCTS FOR MAINTENANCE AND REPAIR

STRATA 11 Nickel Chrome Silicone Boron alloy that forms complex borides and carbides in a nickel matrix.

FEATURES & APPLICATIONS

It flows easily on to base metals and yields smooth deposits. It can be formed and wiped to sharp edge. Deposits maintain a level of hardness up to 1200 F and resist galling, pitting and corrosion in addition to abrasion. It can be deposited on low and medium carbon steels, and cast iron (with flux). Deposits have exceptional hot hardness capabilities and are ideal for overlaying of valves, chains, cams, crane hooks, cutting tools, plough shears, valve push rods, feeder flights, guides etc..

Applications:

- Liners • Cages • Glass Moulds
- Thrust Shoes • Valve Components • Centrifuges
- Bushings • Oil Extrusion Screws • Shaft Sleeves
- Plastic Extrusion Flight Screws • Slurry Pipe and Elbows • Impeller Screws

Typical Chemistry (wt%)

C	B	Si	Cr	Fe	Co	Ni	TOE
0.75	3.5	4.5	14	4	1	Bal	0.5

Typical Physical and Mechanical Properties

Density		Liquidus		Specific Heat	Thermal Expansion μin/in °F
g/cc	lb/in ³	°C	°F	BTU/lb °F	
7.8	0.28	1038	1900	0.1	8.1
Tensile Strength ksi, As Cast		Yield Strength ksi, As Cast		Elongation %, RT	Impact Strength RT, ft/lb
77				<1%	

Deposit Characteristics

Abrasion Resistance - Excellent	Deposit Layers - 2 Maximum
Impact Resistance - Fair	Surface Cross - Checks Yes
Corrosion Resistance - Good	Machining not recommended – Grind OK
Hot Hardness - Excellent Up to 1200 °F	Magnetic - No
Friction Resistance - Good	Hardness - HRc 54-62

BRAZING INSTRUCTIONS

Welding Techniques:

Clean weld area thoroughly and remove surface oxidation with steel wool or by grinding with oxy-acetylene torch and adjust to a carburising flame. Heat metal to a dull red colour and then apply the alloy. Avoid overheating the base metal and use with flux. Cool slowly and grind to shape.

PROLINE
professional welding supplies

Ph: 0800 699 353
sales@prolinewelding.com