

**Classification**

**Characteristics** Blended material which consist of 40% of a self fluxing atomised NiBSi- alloy matrix alloy with a hardness of approx. 40 HRc and 60% cast tungsten carbide. The powder is used for the Plasma-Transferred Arc welding process (PTA) The deposits are resistant against heavy abrasion, heat and corrosion, high impact and compression stress.

**Application** PTA-overlays against high load abrasion and impact. Mainly used with different welding procedures in Oil and Gas Industry, Mining, Mechanical Engineering and Agriculture, decanter and transport screws, mixer parts, drilling tools, woodworking tools, ploughshares, manufacturing of petrochemical apparatuses. Heat treatable steels are preheated to avoid cracking at the base material.

**Recommendations** Grinding only

Composition of the matrix alloy (40%)	Si	B	Fe	Ni	Hardness
	2,5 - 3,5	1,8 – 2,5	< 1	balance	38-46 HRc

Hardphase: Cast WC (60%)	C	W	Hardness
	3,8 – 4,1	balance	1900 – 2200 HV

**Density** Matrix alloy : approx. 8 g/cm<sup>3</sup> Hard phase FTC: approx.16,5 g/cm<sup>3</sup>

**Melting point** Matrix alloy: 1070°C Hard phase FTC: approx 2860 °C

**Remark** The proportion matrix: hard phase depends on application

**Sizes** The grain size distribution can be in between -180 +53µm. Other size distributions can be produced on request, the range although is restricted by production process limitations.

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