

CARBO PTA- 60/40

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 apparatures.

Heat treatable steels are preheated to avoid cracking at the base

material.

Recommendations Grinding only

Composition of the matrix alloy (40%)

Si	В	Fe	Ni	Hardness
2,5 - 3,5	1,8 - 2,5	< 1	balance	38-46 HRc

Hardphase: Cast WC

(60%)

С	W	Hardness
3,8 - 4,1	balance	1900 – 2200 HV

Density Matrix alloy: approx. 8 g/cm³ Hard phase FTC: approx.16,5 g/cm³

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.

Rev. 000

Statements on composition and application are just for the applier's information. Statements on mechanical properties always refer to the all-weld-metal according to valid standards. Carbo-Weld may change the characteristics of its products without notice. We recommend the applier to check our products for their special application autonomously.