

Classification

EN 14700

P Z Fe3

Characteristics and field of use

PLASweld™ Ferro 45 for laser and plasma arc surfacing was especially developed for highly resistant build-ups on machine parts and tools subject to heavy abrasion and compression combined with moderate impact at elevated temperatures.

Chemical composition of powder blend (approx. values in weight %)

C	Si	Mn	Cr	Mo	Fe
0.25	0.3	0.8	5.0	4.0	balance

Properties

The deposit is machinable by grinding or with tungsten carbide tools.

PLASweld™ Ferro 45 is a powder with spherical particles for wear resistant hardfacing. The additions of chromium and molybdenum stabilize the alloy up to 550 °C.

Specific weight: 7.9 g/cm³
Hardness of pure weld metal deposit: 42 – 46 HRC

Welding instruction

Preheating and interpass temperature should be adjusted to the base metal. To obtain the best weld metal properties, it is necessary to optimize the main and pilot arc, plasma gas, welding speed and distance, weave width and powder flow.

Preheating and interpass temperature (if necessary) have to be adjusted to the base metal to minimize cracking. To obtain the desired metal properties, it is necessary to optimize laser output, flow rate control of powder and powder gas, type and quantity of shielding gases, welding strategy, welding speed and weld distance.

Availability

-150 + 50 µm in 5 kg powder containers

Further packaging size and grain size ranges on demand.