

Classification

EN 14700

P Z Fe3

Characteristics and field of use

PLASweld™ Ferro39 for laser and plasma arc surfacing was especially developed for highly resistant build-ups on hot working tools and structural parts subject to impact, compression and abrasion at elevated temperatures.

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

C	Si	Mn	Cr	Mo	Fe
0.14	0.3	0.8	6.5	3.5	balance

Properties

The deposit is machinable with cutting tools.

PLASweld™ Ferro39 is a powder with spherical particles for wear resistant hardfacing. The weld deposit combines an excellent wear resistance and toughness. The additions of chromium and molybdenum stabilize the alloy up to 550 °C.

Specific weight: 7.8 g/cm³
Hardness of pure weld metal deposit: 38 – 42 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

-90 + 45 µm in 5 kg powder containers

Further packaging size and grain size ranges on demand.