


P20 and **H13** DC-

TOOL STEEL

DESCRIPTION

High quality TIG rod for the **repair** and the **build up** of the dies made in tools steels type P20 and type H steel (H11, H12, H13, etc)

CHARACTERISTICS

- **Deposit metal similar to P20 or H13 steel, depending on the case**
- Dense and porosity free deposit
- Deposit can be heat treated
- Deposit has good machinability (only P20)
- Good resistance against abrasion and heat (H13 deposits)

TYPICAL APPLICATIONS

Soudotec P20 is recommended for the repair and the build up of dies and support for the die casting of zinc, plastic, etc.

Soudotec H13 is recommended for the repair and the build up of dies for the die casting of aluminum, zinc, magnesium. Repair of hot working and forging dies.

PROCEDURE

Remove any trace of oil, grease and dirt from the surface. Remove damaged metal with the **Soudotec 212 SP** or **Soudotec G12** electrode. Prepare the part with rounded grooves and remove all cracks. Preheat the thick section between 250 à 400°C (482 à 900°F). Deposit straight bead of 2" to 3" long. Use a short arc and at high welding speed to avoid overheating the parts. Cool down slowly. In certain situations it is suggested to post-heat to reduce the stress and to have a good colour match deposit.

MECHANICAL PROPERTIES

Hardness P20 (as-welded): 34 - 36 HRC
 Hardness H13 (as-welded): 55 - 57 HRC

WELDING PARAMETERS

Diameter:	3.2 mm (1/8")	2.5 mm (3/32")	1.6 mm (1/16")
Polarity:	DC-		
Gas:	Pure Argon		
Gas flow-rate:	Approximately 35 - 40 c.f.h		

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Specialized welding alloys and technology. For technical assistance or for ordering: