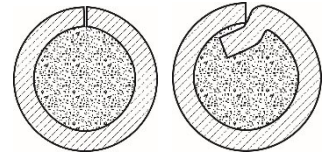


PP-Np-180H9*(Np-180Cr9)*

TU U 28.7-21459234-021:2008

Diameter: 1.2 – 4.0 mm
 Shielding: open arc
 Structure: tubular, overlapping

**General description**

Flux-cored wire of **PP-Np-180H9** grade is designed for automatic and semi-automatic open-arc hardfacing of parts exposed to severe abrasive wear. It is desirable to perform hardfacing down-hand or in the inclined position, using reversed polarity direct current.

Welding process properties

Weld formation	- good
Slag separation	- good
Deposit factor, g/A·h	- 15 – 22
Crack susceptibility	- moderate
Wire consumption, kg	- 1.1 – 1.2
Hardness of weld metal	- HRC 55 – 62

Operating conditions (open arc)

Wire diameter, mm	Current, A	Voltage, V	Deposition rate, m/h	Wire stick-out, mm
1.6	150 – 230	23 – 27	8 – 15	30 – 40
2.0	180 – 280	24 – 28	10 – 18	30 – 40
2.4	220 – 320	25 – 28	13 – 20	30 – 40
2.8	260 – 380	25 – 29	14 – 22	30 – 40

Properties of weld metal

Wear resistance: high. Impact resistance: moderate. Extremely high resistance to soil- and mineral-induced abrasive wear. The weld metal can only be machined by grinding. When hardfacing is performed on large parts, fine cracks may appear on small areas, which does not impair the wear resistance by any means.

Process features

Hardfacing of small parts is performed in at least two pads without pre-heating and concurrent heating. On solid parts, deposit welding requires pre-heating to temperatures ranging from 250 to 350°C. It is desirable to perform hardfacing in separate beads. Multi-pad weld deposit up to 20 mm thick is acceptable in some spots.

The wire can be made in a version for gas (Ar, Ar + CO₂)-shielded hardfacing.

Wire diameters up to 2.2 mm can be supplied on metal spools K-300 (15 kg).

Application

Repair of worn parts in the equipment of mining companies and steel foundries, agricultural and construction machinery, excavators, screw conveyors, blades, augers, parts of cement and concrete pumps, etc.

