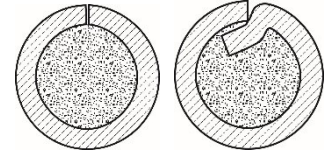


PP-Np-45

TU U 28.7-21459234-021:2008

Diameter: 1.6 – 4.0 mm
 Shielding: Ar, CO₂, Ar + CO₂
 Structure: tubular, overlapping

**General description**

Flux-cored wire of **PP-Np-45** grade is designed for automatic and semi-automatic gas-shielded hardfacing of parts exposed to increased temperatures and substantial relative pressure. It is desirable to perform deposit welding down-hand, using reversed polarity direct current.

Welding process properties

Weld formation	- good
Slag separation	- good
Deposit factor, (g/A)·h	- 10 – 16
Crack susceptibility	- increased
Wire consumption, kg	- 1.1 – 1.15
Hardness of weld metall	after hardfacing: HRC 52 – 58 - after annealing: 750°C, 3-hour holding: HRC 25 – 30

Operating conditions (CO₂-shielded)

Wire diameter, mm	Current, A	Voltage, V	Deposition rate, m/h	CO ₂ flow rate, L/min.
1.6	150 – 230	24 – 28	8 – 15	6 – 10
2.0	180 – 280	24 – 31	10 – 18	8 – 12
2.4	220 – 320	25 – 32	13 – 20	10 – 14
2.8	260 – 380	25 – 32	14 – 22	12 – 16

Properties of weld metall

Wear resistance: excellent at increased temperatures up to 600°C.
 Impact wear resistance: moderate. Cuttability: satisfactory.

Process features

Before hardfacing, the parts should preferably be pre-heated to 300-400°C.
 Immediately after hardfacing: tempering at 400-500°C, holding for 1.5 – 2.0 hours.
 Wire diameters up to 2.2 mm can be supplied on metal spools K-300 (15 kg).

Application

Hardfacing of metal hot-cutting blades, stamping and pressing tools, augers, mixer parts, fan blades, etc.

