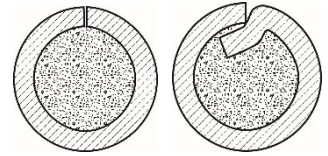


PP-Np-20

TU U 28.7-21459234-021:2008

Diameter: 1.2 – 4.0 mm
 Shielding: flux, CO₂, Ar + CO₂
 Structure: tubular, overlapping

**General description**

Flux-cored wire of **PP-Np-20** grade is designed for submerged-arc or gas-shielded hardfacing of parts exposed to metal-to-metal friction. It is desirable to perform hardfacing down-hand, using reversed polarity direct current.

Welding process properties

Recommended flux	- EFA-1, AN-348A, AN-60
Weld formation	- good
Slag separation	- excellent
Deposit factor, g/A·h	- 10 – 15
Crack susceptibility	- low
Wire consumption, kg	- 1.05 – 1.15
Hardness of weld metall	- HRC 20 – 40

Operating conditions (submerged-arc)

Wire diameter, mm	Current, A	Voltage, V	Deposition rate, m/h
1.6	150 – 230	27 – 30	8 – 15
2.0	180 – 280	29 – 31	10 – 18
2.4	220 – 320	30 – 32	13 – 20
2.8	260 – 380	31 – 33	14 – 22
3.2	300 – 430	32 – 34	15 – 25

Properties of weld metal

Wear resistance: high under the recommended operating conditions. Impact resistance: good. Can be machined with cutting tools.

Process features

Hardfacing does not require the parts to be pre-heated if carbon content in the base metal does not exceed 0.25%. With the carbon content above 0.25%, it is desirable to pre-heat the part to 200-300°C. The wire can be made in a version for CO₂ or Ar + CO₂-shielded hardfacing.

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

Application

Hardfacing of tracked vehicle undercarriage parts, sintering machine segments, roller table rollers, crane wheels, tram wheel treads, brake pulleys, shaft seats, etc.

