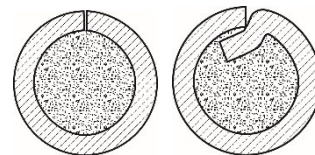


GRADE	CLASSIFICATION FEATURES	STRUCTURE TYPE
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PP-Np-25

TU U 28.7-21459234-021:2008

Diameter: 1.2 – 3.0 mm
 Shielding: open arc,
 Ar, CO₂, Ar + CO₂
 Structure: tubular, overlapping



General description

Flux-cored wire of **PP-Np-25** grade is designed for open-arc or gas-shielded machine hardfacing of carbon steel parts exposed to metal-to-metal friction. It is desirable to perform hardfacing 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	- moderate
Wire consumption, kg	- 1.1 – 1.2
Hardness of weld metall	- HRC 42 – 50

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	10 – 15	30 – 40
2.0	180 – 280	24 – 28	15 – 20	30 – 40
2.4	220 – 320	25 – 28	20 – 25	30 – 40
2.8	260 – 380	25 – 29	20 – 25	30 – 40
3.0	280 – 400	26 – 31	20 – 25	30 – 40

Properties of weld metal

Wear resistance: high under the recommended operating conditions. Impact resistance: moderate. 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 Ar, 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, axles, roller table rollers, shaft seats, rail car couplers, etc.

