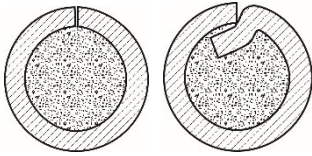


GRADE	CLASSIFICATION FEATURES	STRUCTURE TYPE
PP-Np-40H (Np-40Cr) TU U 28.7-21459234-021:2008	Diameter: 1.6 – 4.0 mm Shielding: open arc, flux, Ar, Ar + CO ₂ Structure: tubular, overlapping	

General description

Flux-cored wire of **PP-Np-40H** grade is designed for open-arc, submerged-arc or gas-shielded hardfacing, as well as sputtering (metallizing), of parts exposed to severe abrasive wear and corrosion at normal or increased temperatures up to 450°C. It is desirable to perform hardfacing using reversed polarity direct current.

Welding process properties

Recommended flux grade	- EFA-1 , AN-26S/P, AN-20S/P
Weld formation	- good
Deposit factor, g/A·h	- 12 – 16
Crack susceptibility	- moderate
Wire consumption, kg	- 1.05 – 1.2
Hardness of weld metall	- after hardfacing HRC 48 – 56 - after annealing HRC 26 – 32

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

Good abrasion resistance at temperatures up to 450°C. Impact resistance: moderate. The weld metall is corrosion-resistant in a steam and water environment. Satisfactorily cuttable.

Process features

Hardfacing of solid items requires pre-heating to 250-300°C.

Thermal treatment: annealing at 800-820°C, 3-hour holding followed by cooling at a rate of 30-40°C/h. Oil quenching at 1000-1050°C, tempering at 250-300°C, 2-hour holding, HRC 50 – 55.

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

Application

Hardfacing of tractor and excavator road wheels, conveyor parts, plough shares, etc.
Can be used for sputtering (metallizing).

