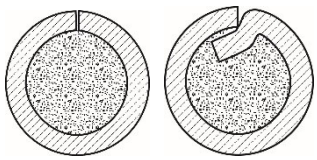
GRADE	CLASSIFICATION FEATURES	STRUCTURE TYPE

PP-Np-100H

(Np-100Cr)

TU U 28.7-21459234-021:2008

Diameter: 1.6 – 4.0 mm
Shielding: open arc,
Ar, Ar + CO_2
Structure: tubular, overlapping



General description

Flux-cored wire of **PP-Np-100Kh** grade is designed for automatic and semi-automatic open-arc or gas-shielded hardfacing of parts exposed to high impact loads and severe abrasive wear at normal or sub-zero temperatures. It is desirable to perform hardfacing down-hand, using reversed polarity direct current. Can be used for sputtering (metallizing).

Welding process properties

Weld formation	- good
Slag separation	- good
Deposit factor, g/A·h	- 12 – 16
Crack susceptibility	- moderate
Wire consumption, kg	- 1.1 – 1.2
Hardness of weld metall	- **HRC 38 – 45**

Operating conditions (Ar + CO_2)

Wire diameter, mm	Current, A	Voltage, V	Gas flow rate, L/min.	Deposition rate, m/h
1.6	160 – 260	24 – 30	5 – 9	9 – 16
2.0	200 – 300	24 – 32	6 – 10	12 – 19
2.4	240 – 340	25 – 32	8 – 12	13 – 21
2.8	280 – 400	26 – 32	10 – 14	15 – 23
3.0	300 – 430	27 – 33	10 – 15	15 – 25

Properties of weld metall

The weld metall has high resistance to impact and abrasive action of soil at normal and sub-zero temperatures. Machining is only possible by grinding.

Process features

It is recommended to perform the hardfacing by short-arc welding. For better slug separation, each pad should be cooled to about 150°C.

The wire can be made in a version for pure argon or Ar + CO_2-shielded hardfacing.

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

Application

Hardfacing of augers, ripper points, bulldozer attachments, plough shares, cultivator blades, etc. Can be used for sputtering (metallizing).