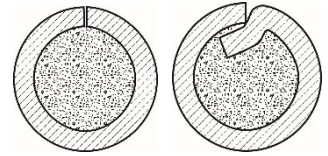


# Hardsteel 38

TU U 28.7-21459234-021:2008

Diameter: 1.6 – 4.0 mm  
 Shielding: flux  
 Structure: tubular, overlapping



## General description

Flux-cored wire of **Hardsteel 38** grade is designed for automatic and semi-automatic submerged-arc hardfacing of parts exposed to metal-to-metal friction at normal and increased temperatures. It is desirable to perform hardfacing using reversed polarity direct current.

## Welding process properties

Recommended flux	- EFA-1, AN-348A, AN-60, AN26S/P, AN20S/P
Weld formation	- good
Slag separation	- good
Deposit factor, g/A·h	- 10 – 15
Crack susceptibility	- moderate
Wire consumption, kg	- 1.05 – 1.2
Hardness of weld metal	- <b>HB 320 – 420</b>

## Operating conditions (submerged-arc)

Wire diameter, mm	Current, A	Voltage, V	Deposition rate, m/h
1.6	140 – 220	25 – 29	10 – 15
2.0	160 – 260	25 – 30	12 – 18
2.8	240 – 360	28 – 32	18 – 23
3.2	280 – 420	30 – 33	20 – 25

## Properties of weld metal

Wear resistance: high under the recommended operating conditions. Impact resistance: moderate.  
 The weld metal can be machined with cutting tools.

## Process features

For parts with the carbon content in steel below 0.25%, hardfacing does not require pre-heating. Otherwise, pre-heating to 250-300°C is required. Multi-pad hardfacing is acceptable.  
 Wire diameters up to 2.2 mm can be supplied on metal spools K-300 (15 kg).

## Application

Hardfacing of crane wheels, support rollers, brake pulleys, slide guides, road wheels and idlers of tracked vehicles, gear teeth, roller table rollers, shaft seats, continuous-casting (CC) machine roller journals, etc.

