

# GARBAFLEX 75

## Flat and shaped wire

GARBAFLEX 75 has a uniform microstructure of tempered martensite. A special heat treatment process has made it possible to produce a material sufficiently ductile for coiling on edge without fracture.

## Chemical composition

Element	Weight %
C	0.60% - 0.80%
Si	0.10% - 0.30%
Mn	0.55% - 0.90%
Cr	0.20%
P max.	0.035%
S max.	0.035%

## Mechanical properties

### Flat wire tolerance

Width (mm)	Tolerance (mm)		
1.00 - 5.00	±0.050		
5.01 - 8.00	±0.070		
8.01 - 10.00	±0.100		
Thickness (mm)	Tolerance (mm)	Tensile strength (N/mm <sup>2</sup> )	Hardness
0.30 - 0.80	±0.013	1720 - 1860	69 - 72 HR30N
0.81 - 1.00	±0.019	1720 - 1860	69 - 72 HR30N
1.01 - 1.60	±0.025	1480 - 1625	46 - 49 HRC
1.61 - 2.30	±0.050	1480 - 1625	46 - 49 HRC
2.31 - 4.50	±0.050	1480-1625	46 - 49 HRC

### Shaped wire tolerance

Width (mm)	Tolerance (mm)
>1.50	±0.020

1.50 - 3.00	$\pm 0.030$
3.01 - 5.00	$\pm 0.040$
5.01 - 7.00	$\pm 0.050$
>7.00	$\pm 0.060$

## Surface conditions

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White polished or oxide.

Surface defects max. 1% of thickness

## Technical specification

Property	Value	
E modulus of elasticity	206 kN/mm <sup>2</sup>	
G modulus of shear	79.5 kN/mm <sup>2</sup>	
Density	7.95 kg/dm <sup>3</sup>	
Microstructure	Tempered martensite with no ferrite	
Execution (flat)	Rolled on 2 sides	
Execution (shaped)	Rolled on 4 sides	Profile drawn
Camber	Max. 4 mm measured on 1 m length.	
Coil set	Max. 20 mm measured on 1 m length.	

## Steel grades and product standards

Nearest equivalent product standards	EN 10270-1	
Nearest equivalent steel grades	EN/DIN 1070	AISI/SAE 1070

## Additional

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#### **Decarburization**

No total decarburisation. Partial decarburisation (no continuous zones) max. 1.2% of a corresponding round wire dimension.