GARBAFLEX 85

Flat wire

This propriety steel grade has high carbon content. It is especially intended for applications where high tensile strength is demanded.

Chemical composition

Element	Weight %
C	0.80% - 0.95%
Si	0.10% - 0.30%
Mn	0.30% - 0.60%
P max.	0.025%
S max.	0.020%

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^2)**	**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	±0.030
3.01 - 5.00	±0.040
5.01 - 7.00	±0.050
>7.00	±0.060

For flat wire

Width (mm)	Tolerance (mm)	
4.00	±0.040	
4.01 - 6.00	±0.070	
1.00	±0.020	1965 -
1.01 - 1.50	±0.030	1900 -

Yield point

Yield strength: 80-90% of the tensile strength.

Surface conditions

Surface condition

Bright or oxide.
Surface defects max 1% of thickness.

Technical specification

Property	Value
E modulus of elasticity	206 kN/mm^2
G modulus of shear	79.5 kN/mm^2
Density	7.95 kg/dm3
Camber	Max. 4 mm measured on 1 m length.
Elongation	Min 4%

Steel grades and product standards

Nearest equivalent product standards	EN 10270-1	AMS SA 905
Nearest equivalent steel grades	JIS 1.1269	

Additional

Additional information

Edges
Natural edges (edge treatment on request).

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

Diagram.: Thickness vs. Width