

## Goodfellow Iron 81/Boron 13.5/Silicon 3.5 Alloy

Category : Metal , Electronic/Magnetic Alloy , Ferrous Metal , Superalloy , Iron Base

### Material Notes:

Information provided by Goodfellow.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Goodfellow-Iron-81Boron-135Silicon-35-Alloy.php](http://www.lookpolymers.com/polymer_Goodfellow-Iron-81Boron-135Silicon-35-Alloy.php)

Physical Properties	Metric	English	Comments
Density	7.32 g/cc	0.264 lb/in <sup>3</sup>	

Mechanical Properties	Metric	English	Comments
Vickers Microhardness	880	880	kg(f)/mm <sup>2</sup>
Tensile Strength at Break	>= 700 MPa	>= 102000 psi	
Tensile Modulus	58.0 GPa	8410 ksi	

Thermal Properties	Metric	English	Comments
Crystallization Temperature	480 °C	896 °F	
Maximum Service Temperature, Air	125 °C	257 °F	

Component Elements Properties	Metric	English	Comments
Boron, B	13.5 %	13.5 %	
Carbon, C	2.0 %	2.0 %	
Iron, Fe	81 %	81 %	
Silicon, Si	3.5 %	3.5 %	

Electrical Properties	Metric	English	Comments
Electrical Resistivity	0.000135 ohm-cm	0.000135 ohm-cm	
Magnetic Coercive Force, Hc	0.080 Oe	0.080 Oe	
Magnetic Saturation Flux Density, Bmax	16000 Gauss	16000 Gauss	
Magnetic Remanence, Br	0.70 Gauss	0.70 Gauss	Remanence Ratio, B <sub>r</sub> /B <sub>s</sub>
Curie Temperature	370 °C	698 °F	

Descriptive Properties	Value	Comments
Saturation magnetostriction (x10 <sup>-6</sup> )	30	

## Contact Songhan Plastic Technology Co.,Ltd.

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