

## 27MnB4 All

### General Information

Grade SB27M12B is a boron steel for general purposes without any specified mechanical properties. Its closest equivalent is found in the EN 10263-4:2001 grade 27MnB4. The difference is the manganese content. SB27M12B may serve as wear parts in graders and snowploughs but also suitable for agriculture machinery.

### Similar designations

SB27M12B - 27MnB5-4

### Chemical composition

Variant	Cast	Weldability		C%	Si%	Mn %	P%	S%	Cr %	B%
SB27M12B	CC	CEV 0.53 <sub>max</sub>	Min	0.25	0.15	1.10	-	0.015	0.10	0.0010
		Pcm 0.38 <sub>max</sub>	Max	0.30	0.35	1.30	0.035	0.035	0.30	0.0060
27MnB4 EN 10263-4:2001	CC	CEV 0.57 <sub>max</sub>	Min	0.25	0.15	0.90	-	0.015	0.10	0.0008
		Pcm 0.42 <sub>max</sub>	Max	0.30	0.35	1.20	0.035	0.035	0.30	0.0050

## Mechanical Properties

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Variant

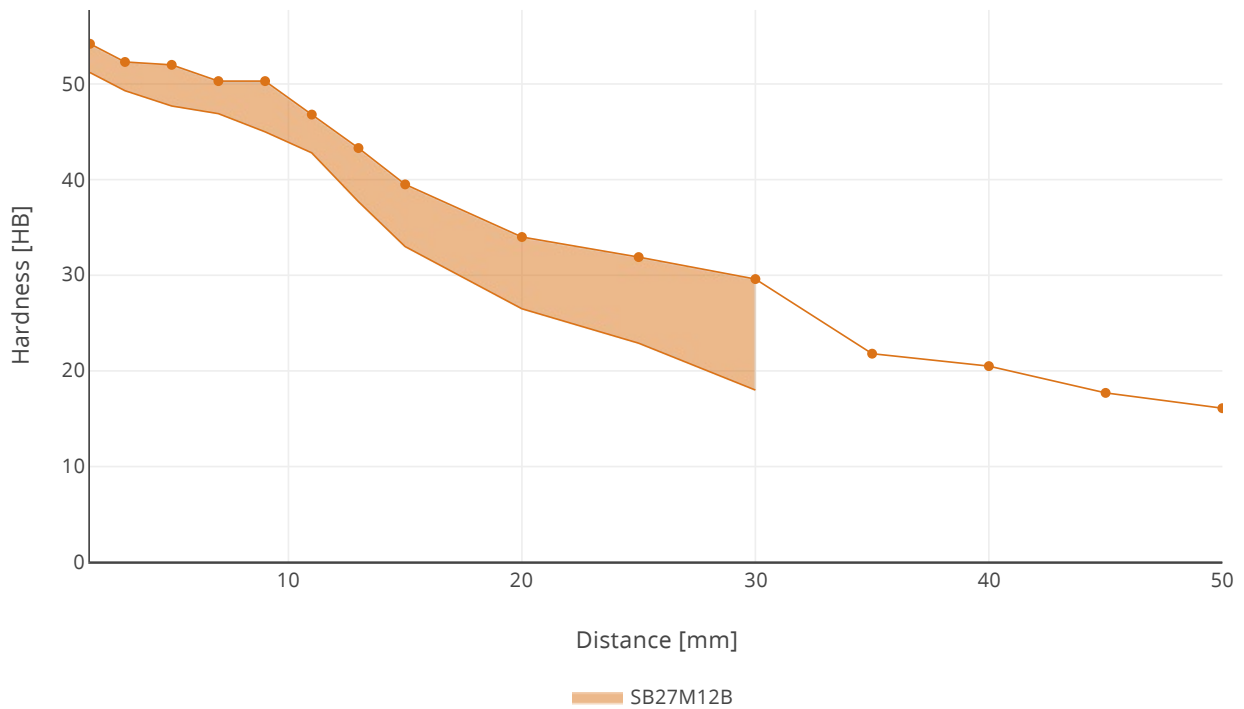
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$R_{p0,2}$  \*  $R_{eh}$ , \*\*  $R_{el}$

### Transformation temperatures

	Temperature °C
MS	384
AC1	721
AC3	787

## Hardenability



## Other properties (typical values)

Youngs module (GPa)	Poisson´s ratio (-)	Shear module (GPa)	Density (kg/m3)
210	0.3	80	7800
Average CTE 20-300°C (µm/m°K)	Specific heat capacity 50/100°C (J/kg°K)	Thermal conductivity Ambient temperature (W/m°K)	Electrical resistivity Ambient temperature (µΩm)
12	460 - 480	40 - 45	0.20 - 0.25

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Via e-mail: [info@ovako.com](mailto:info@ovako.com)

Via telephone: +46 8 622 1300

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