



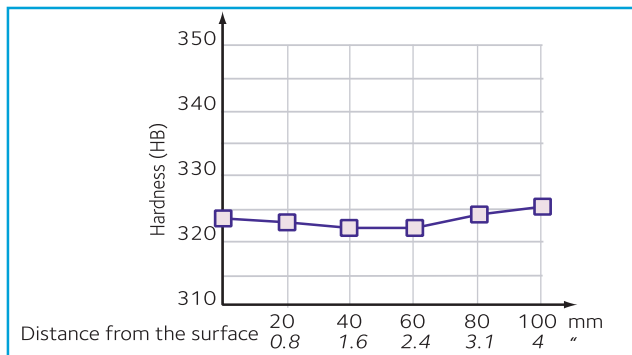
# Superplast® Stainless

A new generation of pre-hardened free machining stainless mold steel  
(290/330 HB) – (30/34 HRC\*)

Superplast® Stainless is a new 290-330 HB pre-hardened free machining mold steel specially designed for plastic mold bases, holders and unetched/unpolished inserts and dies. Superplast® Stainless offers improved machinability, consistency and weldability. The special chemistry, based on low Carbon and 12% Chromium content, confers to the steel a good corrosion resistance face to different media.

## Metallurgical properties

Superplast® Stainless is delivered at 290-330 HB. Thanks to its particular chemistry, this martensitic stainless steel offers consistent hardness through plate thickness.



Thickness homogeneity - Example of a 100mm (4") thick plate

## Machining

The specific process (Ca treatment) and chemical composition give Superplast® Stainless a very high ability in machining, milling, gun drilling, radial drilling and tapping, thanks to:

- ⇒ Low carbon      lower carbides content - more homogeneous material
- ⇒ Sulfur content    globular inclusions controlled by a specific
- + controlled process    calcium treatment

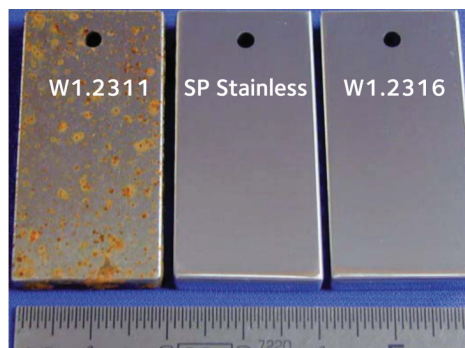
Performances of the steel are definitively improved when compared to conventional grades.

## Welding

The low carbon content offers a good aptitude for weld repairs, avoiding any risk of cold cracking when using an appropriate welding wire. For more information about procedure to follow, please contact Lindquist Steels.

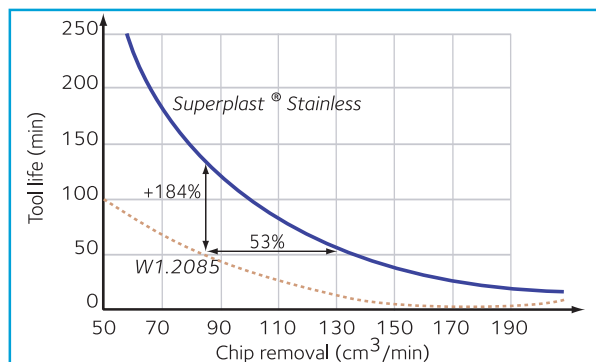
Chemical analysis - % weight (typical value)				
C	Cr	S	Si	Mn
0.07	11.5-13.5	0.10-0.15	0.10	1.3-1.7
Mechanical and Physical properties				
Hardness (HB)	Y.S. 0.2 MPa (KSI)	UTS MPa (KSI)	EL 5.65 %	Thermal Conductivity (W/mK)
310	890 (129)	1000 (145)	14	22
Typical values for a 100mm (4") thick plate.				

## Corrosion resistance



Humid-dry alternated atmosphere test

A combined analysis of low carbon content, high chromium, and other appropriate alloying elements confers to Superplast®Stainless a good corrosion resistance in corrosive molding environments (PVC) and high humidity atmospheres.



Rough milling results on Superplast® Stainless

\* HRC hardness is only indicative value.

Technical data and information are to the best of our knowledge at the time of printing. We suggest that information be verified at time of inquiry or order. Superplast® is a registered trademark of Industeel.

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