

### CHEMICAL ANALYSIS

Typical:	C	Si	Mn	S	Ni	Cr	Mo	B
In Weight %	0.26	0.10	1.50	0.002	0.30	1.60	0.65	+

**Superplast® 350: A patented mold steel that meets or exceeds standards for grades W 1.2738 HH**

#### MATERIAL PROPERTIES

Prehardened steel for medium and very large size molds and tools with good machinability. Consistent texturing and polishing improved by **very low sulphur content**. Reliable repair welding and good thermal conductivity.

#### FOR WHICH TOOLS

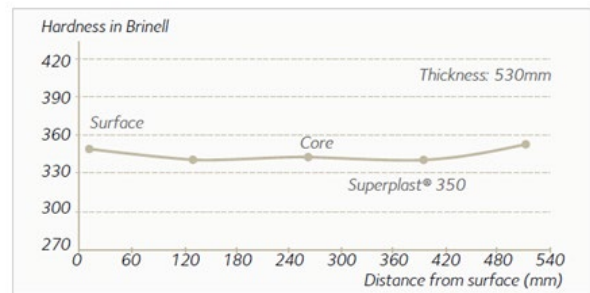
Plastic injection or compression mold cores and cavities, large size molds for bumpers, dashboards, fenders, television panels, bottle crates, etc.

#### FOR WHICH PLASTICS

Thermoplastics (PE, PP, PS), thermosetting plastics, ABS, transparent melts. Injection molding, compression molding, RIM molding, etc.

#### THROUGH HARDENABILITY

Thanks to an optimal balance of alloying elements (especially Boron metallurgy) and high-quality heat treatment, Superplast® 350 exhibits a **consistent hardness through large sections**. Diagram below provides the hardness profile on a 530 mm thick forged block. A hardness difference of max 30HB all over the block is guaranteed.



### MECHANICAL PROPERTIES

Superplast® 350 is delivered **quenched and tempered to 330 - 370 HB (35 - 39 HRC)**

Hardness	Rp 0.2 Yield Strength		Rm Tensile Strength		Elongation	Reduction of Area	K C V 20°C	Elastic Modulus	
	MPa	Ksi	MPa	Ksi				GPa	Ksi
345	940	136	1095	159	15	50	25	205	29733

### PHYSICAL PROPERTIES

Thermal Conductivity W.m-1.K-1		Thermal expansion Coefficient (10-6.K-1)			
20°C		20 - 100°C	20 - 200°C	20 - 300°C	Specific Heat J/Kg °C
39		11	12.6	13.1	480

Typical Values

### TYPICAL DELIVERY SIZES

Manufacturing Process	Thickness	Width
Hot rolling	15 - 150 mm	1000 - 2000 mm
Hot forging	150 - 1200 mm	1000 – 2000 mm

### PLATE PROCESSING

#### WELDING

**Cores and cavities can be polished and /or textured** on welded areas if the following welding data provided below are respected. Please consult your Swiss Steel USA representative for detailed information.

Process	Filler Material	Preheating	Post heating	PWHT
GTAW	SP300 WELD - E DIN 25 CrMo4	min. 150°C	150°C – 2h	550°C – 2h

### GENERAL NOTE

All statements regarding the properties or utilization of the materials or products mentioned are for the purpose of description only. Guarantees regarding the existence of certain properties or a certain utilization are only valid if agreed upon in writing.

### NORTH AMERICAN DISTRIBUTION

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