# TATA STEEL



## Ymagine® H360

# Enhanced performance for demanding engineering needs

Ymagine is Tata Steel's range of high-quality, direct-rolled steel products engineered for reliable performance and efficient processing. Supplied pickled and oiled, Ymagine offers excellent dimensional control, consistent mechanical properties and tight tolerances – making it a smart alternative to cold-rolled or hot-rolled steel. All grades are delivered in weld-free coils and available in various thicknesses,

widths and coil weights to optimise productivity and reduce waste. Ymagine H360 offers enhanced strength and dimensional precision for heavier-duty applications. It is frequently used in shelving, chassis elements, construction brackets and other structural components requiring consistent performance.

#### Mechanical properties (measured parallel to the rolling direction)

	MinMax. yield strength	MinMax. tensile strength	% elongation at frac	Bending at 180 <sup>0</sup> min. mandrel diameter*	
			t < 3 mm	t ≥ 3 mm	t < 5 mm
	R <sub>p</sub> in MPa	R <sub>m</sub> in MPa	L <sub>0</sub> =80 mm (%)	$L_0 = 5.65 \sqrt{S_0} \text{ mm (%)}$	(t)
Typical	385	455	26	29	0
Guaranteed	360-460	430-550	≥ 20	≥ 25	0

<sup>\*</sup> values apply to test bars transverse to the rolling direction

#### Chemical composition (% by weight)

	С	Mn	P	S	Si <sup>1</sup>	Nb	
Typical	0.045	0.500	0.008	0.006	0.018	0.013	
Guaranteed	≤ 0.065	≤ 0.800	≤ 0.025	≤ 0.015	≤ 0.035	≤ 0.020	

For the purpose of batch galvanising, Ymagine high-strength steels can be ordered on consultation with a maximum Si content of 0.030%.

#### **Tolerances**

Thickness	Tolerances		
$1.15 \le t \le 2.0$	± 0.05		
2.0 < t ≤ 2.5	± 0.06		
2.5 < t ≤ 3.0	± 0.07		
3.0 < t ≤ 4.0	± 0.09		
	$\pm$ 0.07 on request		

#### Weldability

Ymagine can be welded using all conventional welding processes. Thanks to the low content of residual elements, the material offers good weldability, comparable to that of hot-rolled or cold-rolled steel with a similar chemical composition.

## **Surface quality**

The surface quality of Ymagine is more than sufficient for hot-rolled and cold-rolled applications that are not surface critical. The surface roughness is comparable to that of hot-rolled pickled and oiled material, i.e.  $1-3 \mu m Ra$  (cut-off length = 2.5 mm).

#### **Coatability**

Ymagine has been tested for both wet paint and powder coatings. Adhesion test results were positive on flat sample material, indicating good coatability.

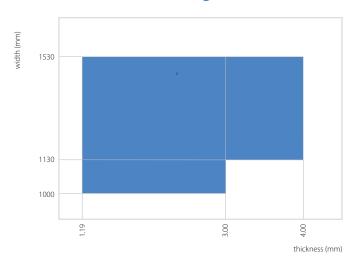
#### **Galvanising**

Ymagine can be hot-dip galvanised without any restrictions.

#### **Product support**

Our proactive Customer Technical Services team is available to help you optimise your processes and maximise performance with tailored advice and hands-on support. Backed by deep steel expertise and in-depth application knowledge, we'll work with you to boost efficiency, reduce waste, and get the best out of Ymagine H360.

## **Available dimensions of Ymagine® H360**



### **Ymagine® range**

Steel grades: Ymagine D1 - drawing steel

Ymagine S1 – structural steel High-strength low-allow steels: H240, H320, H360, H420, H500

Thickness range: 1.15 – 4 mm

Width range: 1000 – 1530 mm

Surface treatment: pickled and oiled

#### **Further information**

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