



Declaration of Performance
(according to regulation EU No 305/2011)

Unique identification code of the product-type:
No. BS Section S420M

Section S420M / 1.8825 according EN 10025-4

Intended use:
To be used in Metal Structures and Composite Metal and
Concrete Structures

Manufacturer:
British Steel Limited
Brigg Road
Scunthorpe, DN16 1XA

Tel: +44 (0)1724 404040

Website : www.britishsteel.co.uk

System of assessment and verification of constancy of
performance of the product:
System 2+

Factory Production Control Notified Body No. 0343 performed the initial
inspection of the manufacturing plant and of factory production control and the
continuous surveillance, assessment, and evaluation of factory production
control and issued the certificate of conformity of the factory production control.

The performance of the product identified in the Declared Performance is in
conformity with the set of declared performance/s.

This declaration of performance is issued, in accordance with:
Regulation EU No 305/2011 under the sole responsibility of the
manufacturer identified above.

Certificate No. 0343/CPR/LRQ0860859/1

Signed for and on behalf of the manufacturer by:

Chris Vaughan
Technical Director,
British Steel Limited

1st May, 2024
Date

Essential characteristic	Declared Performance				Harmonised Standard
	Nominal thickness (mm)		Values (MPa)		
Tolerances on dimensions and shape	I & H Sections		EN 10034		EN10025-1 2004
	Equal Flange Tee		EN 10055		
	Equal Angle		EN 10056-2		
	Unequal Angle		EN10056-2		
	Tapered Flange I		EN 10024		
	Bulb Flats		EN 10067		
	Channels		EN 10279		
Yield strength (transverse)	Nominal thickness (mm)		Values Min (MPa)		
	>	<=			
	16	16	420		
	40	63	400		
	63	80	390		
	80	100	380		
	100	150	370		
Tensile strength (transverse)	Nominal thickness (mm)		Values (MPa)		
	>	<=	min	max	
	0	40	520	680	
	40	63	500	660	
	63	80	480	640	
	80	100	470	630	
	100	150	460	620	
Elongation (transverse)	Nominal thickness (mm)		Values min (% 5.65√s ₀)		
	>	<=			
	0	150	19		
Impact strength (longitudinal)			40J at -20°C		
Weldability CEV	Nominal thickness (mm)		Values max (%)		
	>	<=			
	16	40	0.43		
	40	63	0.45		
	63	120	0.46		
	63	120	0.47		
Durability	Nominal thickness (mm)		Values min (%)	Values max (%)	Mn: 1.70 Cr: 0.30 Cu: 0.55 C: 0.16 Si: 0.50 P: 0.030 S: 0.025 Nb: 0.050 V: 0.12 Ti: 0.05 Ni: 0.80 Mo: 0.20 N: 0.025
	-	120			



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British Steel Limited
Brigg Road
Scunthorpe, UK

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BS Section S420M

Harmonised Standard :
EN 10025-1 – 2004

Section S420M / 1.8825

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and Concrete Structures

Elongation :
Tensile Strength :
Yield Strength : EN 10025-4
Impact Strength :
Weldability :
Durability :

Dangerous Substances : No Performance Determined

EU Notified Body
LRQA Nederland B.V.
George Hintzenweg 77, 3068 AX
Rotterdam, Netherlands
Tel : +31 (0)10 2248500
Email : marc.verboon@lrqa.com
Website : www.lrqa.com