

Customer

Bridge Constructors Europe Ltd.

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Manufacturer

ACME Metal Works GmbH

Industrial Park 123 52066 Aachen

DE

quality@acme-metal.example.com

Certificate Receiver

Civil Infrastructure Authority

Government Building 789 Administration Wing 1000 Brussels

BE

inspections@infra-authority.example.gov.be

Digital Material Passport

ID DMP-METAL-007 Version 1.0.0

Issue Date 2025-05-20 Certificate Type EN 10204 3.1

Business Transaction

Order Delivery

 Order ID
 PO-98765
 Delivery ID
 DN-12345

Position 5 Position 1

 Date
 2025-04-20
 Date
 2025-05-19

 Quantity
 20000 kg
 Quantity
 20000 kg

Product Information

Product Name Structural Steel S420N Plate

Batch ID H-45678-01
Heat Treatment Normalized

Surface Condition Shot blasted and primed

Production Date 2025-05-18

Country of Origin DE

Product Norms

Designation EN 10025-3 (2019)

Grade S420N

Designation EN 1090-2 (2018)

Grade EXC3

Material Designations

System EN
Designation 1.8902

Product Shape

Form Plate
Length 12000 mm
Width 2500 mm
Thickness 25 mm

Chemical Analysis

Heat Number H-45678

Melting ProcessEAF+LF+VDCasting Date2025-05-17

Casting Method ContinuousCasting

Sample Location Ladle

Elements

Symbol	C	Mn	Si	P	S	Nb	٧	Ti	CEV
Unit	%	%	%	%	%	%	%	%	%
Min	-	1.0	-	-	-	-	-	-	-
Мах	0.22	1.7	0.6	0.025	0.02	0.05	0.05	0.03	0.48
Actual	0.16	1.38	0.32	0.016	0.008	0.022	0.034	0.009	0.4

Formula Definitions

CEV = C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15: 0.4 %

Mechanical Properties

Property	Symbol	Actual	Minimum	Maximum	Method	Status
Tensile Strength	Rm	550 MPa	520	680	EN ISO 6892-1	✓
Yield Strength	ReH	440 MPa	420		EN ISO 6892-1	\checkmark
Elongation after fracture	Α	21 %	19		EN ISO 6892-1	\checkmark
Charpy V-notch Impact - Energy	KV	65 J	40		EN ISO 148-1	✓

Supplementary Tests

Property	Actual	Target/Min	Maximum	Method	Status
Ultrasonic Testing Class S2E2	Yes No recordable indications exceeding acceptance criteria	-		EN 10160	√
Through-thickness Properties	Z25	-		EN 10164	\checkmark
Weldability	Yes Satisfactory welding properties	-		Internal Method based on - EN ISO 15614-1	\checkmark

Validation

We hereby certify that the material described above has been manufactured and tested in accordance with the requirements of EN 10025-3:2019 and EN 10204:2004 type 3.1. The product complies with the Construction Products Regulation (EU) No 305/2011 and is suitable for use in structural applications according to EN 1090-2:2018, up to and including Execution Class EXC3.

Validated By

Name	Title	Department	Date
John Smith	Quality Manager	Quality Assurance	2025-05-20
JOHN SMITH JOHN SMITH JOHN SMITH JOHN SMITH			
Maria Schmidt	Quality Manager	Quality Assurance	2025-05-20

Data schema maintained by Material Identity.

https://schemas.materialidentity.org/metals-schemas/v0.1.0/schema.json