



Customer

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Manufacturer

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Certificate Receiver

Civil Infrastructure Authority

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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
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 Process	EAF+LF+VD

Casting Date

Casting Method

Sample Location

2025-05-17

ContinuousCasting

Ladle

Elements

Symbol	C	Mn	Si	P	S	Nb	V	Ti	CEV
Unit	%	%	%	%	%	%	%	%	%
Min	-	1.0	-	-	-	-	-	-	-
Max	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					EN ISO 6892-1	✓
3 specimens tested at 20°C, transverse to rolling direction						

Individual Values		# 1	# 2	# 3
Value [MPa]		548	550	552
Statistics		Mean	Min/Max	Std Dev
		550.0	548 / 552	

Yield Strength					EN ISO 6892-1	✓
3 specimens tested at 20°C, transverse to rolling direction						

Individual Values		# 1	# 2	# 3
Value [MPa]		438	440	442
Statistics		Mean	Min/Max	Std Dev
		440.0	438 / 442	

Elongation after fracture					EN ISO 6892-1	✓
3 specimens tested, gauge length 5.65#S ₀ , transverse to rolling direction						

Individual Values		# 1	# 2	# 3
Value [%]		20.5	21.0	21.5
Statistics		Mean	Min/Max	Std Dev
		21.0	20.5 / 21.5	

Charpy V-notch Impact Energy					EN ISO 148-1	✓
3 specimens tested at -20°C, transverse to rolling direction						

Individual Values		# 1	# 2	# 3
Value [J]		63	65	67
Statistics		Mean	Min/Max	Std Dev
EN ISO 148-1 statistical analysis		65.0	63 / 67	2.0 (Sample)


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	✓
Weldability	Yes Satisfactory welding properties	-	-	Internal Method based on - EN ISO 15614-1	✓

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
	Quality Manager	Quality Assurance	2025-05-20
Maria Schmidt			