

Customer
Advanced Nuclear Systems Ltd.
Energy Square 456
OX14 3DB Abingdon, GB
procurement@advnuclear.example.com

Manufacturer
ACME Metal Works GmbH
Industrial Park 123
52066 Aachen, DE
quality@acme-metal.example.com

Digital Material Passport

ID	DMP-METAL-004	Version	1.0.0
Issue Date	2025-05-16	Certificate Type	EN 10204 3.1

Business Transaction

Order		Delivery	
Order ID	PO-56789	Delivery ID	DN-12345
Position	2	Position	1
Date	2025-04-10	Date	2025-05-15
Quantity	200 kg	Quantity	200 kg

Product Information

Product Name	Stainless Steel 316L
Batch ID	H-87654-01
Heat Treatment	Solution Annealed
Surface Condition	2B
Production Date	2025-05-14
Country of Origin	DE

Material Designations

System	UNS EN
Designation	S31603 1.4404

Product Shape

Form	Plate
Length	2000 mm
Width	1000 mm
Thickness	10 mm

Chemical Analysis

Heat Number	H-87654
Melting Process	EAF+AOD+LF
Casting Date	2025-05-13
Sample Location	Ladle

Elements

Symbol	C	Cr	Ni	Mo	Mn	Si	P	S	N
Unit	%	%	%	%	%	%	%	%	%
Min	-	16.0	10.0	2.0	-	-	-	-	-
Max	0.03	18.0	14.0	3.0	2.0	0.75	0.045	0.03	0.1
Actual	0.018	17.2	10.5	2.15	1.4	0.38	0.025	0.002	0.052

Mechanical Properties

Property	Symbol	Unit	Actual	Minimum	Maximum	Method	Status
Tensile Strength	Rm	MPa	580	515		ASTM E8	✓
0.2% Yield Strength	Rp0.2	MPa	240	205		ASTM E8	✓
Elongation	A	%	52	40		ASTM E8	✓

Validation

We hereby certify that the material described above has been manufactured and tested in accordance with ASTM A240/A240M and meets all specified requirements. This material is suitable for nuclear applications in accordance with RCC-M code.

Validated By

Name	Title	Department	Date
Thomas Wagner	Metallurgist	Quality Assurance	2025-05-16
Anna Schmidt	Quality Manager	Quality Assurance	2025-05-16