

Manufacturer
Steel Heat Treatment GmbH
123 Industrial Park
40210 Düsseldorf
DE

Customer
Automotive Components Inc
456 Manufacturing Drive
Detroit 48220
US

Digital Material Passport

ID	HT-TEST-001	Version	0.1.0
Issue Date	2024-11-15	Certificate Type	EN 10204 3.1

Business Transaction

Order		Delivery	
Order ID	ORD-2024-HT-047	Delivery ID	DEL-2024-047
Quantity		Quantity	4750 kg

Product Information

Product Name	Carbon Steel Round Bar 42CrMo4
Batch ID	BATCH-2024-047

Heat Treatment

Process: Quenching and Tempering | **Lot:** HT-2024-11-15-B47 | **Charge:** FC-1234-02
Furnace: FURNACE-03 | **Date:** 2024-11-15 | **Operator:** Shift-B-Team-2

Stage	Temperature	Duration	Cooling	Atmosphere
Austenitizing	850 C +/-10C	45 min		Air
Quenching	60 C	10 min	Oil 200°/ min	
Tempering	550 C +/-5C	120 min	Air 25°/ min	

Bundling: 100 items, spaced, 4750 kg

Quality Checks:
Hardness: 32-34 HRC (HRC per ASTM E18)
Temperature: Within tolerance (Thermocouple Type K)
Certification: ISO-17025-2024-CERT

Material Designations

System	EN AISI/SAE
Designation	42CrMo4 4140

Product Shape

Form	RoundBar
Length	6000 mm
Diameter	80 mm

Mechanical Properties

Property	Symbol	Actual	Minimum	Maximum	Method	Status
Tensile Strength	Rm	985 MPa	900	1100	EN ISO 6892-1	✓
Yield Strength	Re	835 MPa	750		EN ISO 6892-1	✓
Elongation	A	14.5 %	10		EN ISO 6892-1	✓
Rockwell Hardness	HRC	33 HRC	28	35	ASTM E18	✓

Validation

We hereby certify that the material described above has been heat treated and tested in accordance with the requirements of EN 10204:2004 type 3.1 and the specified standards. The results comply with the requirements.

Validated By

Name	Title	Department	Date
Dr. Klaus Schmidt	Quality Manager	Quality Assurance	2024-11-15