

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
Quantity		Quantity

Product Information

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

Material Designations

System	EN AISI/SAE
Designation	42CrMo4 4140

Product Shape

Form	RoundBar
Length	6000 mm
Diameter	80 mm

Heat Treatment

Process	Lot	Furnace	Date
Quenching and Tempering	HT-2024-11-15-B47	FURNACE-03	2024-11-15

Stages

Stage	Temperature	Duration	Cooling	Atmosphere
Austenitizing	850 C	45 min		Air
Quenching	60 C	10 min	Oil	
Tempering	550 C	120 min	Air	

Mechanical Properties

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

<i>Name</i>	<i>Title</i>	<i>Department</i>	<i>Date</i>
Dr. Klaus Schmidt	Quality Manager	Quality Assurance	2024-11-15

Data schema maintained by [Material Identity](#).

<https://schemas.materialidentity.org/metals-schemas/v0.1.1/schema.json>