

**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	Delivery ID	DEL-2024-047
Quantity	Quantity	4750 kg

#### Product Information

Product Name	Carbon Steel Round Bar 42CrMo4
Batch ID	BATCH-2024-047
Delivery Condition	+QT - Quenched and Tempered

#### Material Designations

Name (EN 10027-1)	42CrMo4
Number (EN 10027-2)	1.7225
Name (AISI/SAE)	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

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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

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

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