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Digital Material Passport

| | | | |
|-------------------|---------------|-------------------------|--------------|
| <i>ID</i> | DMP-METAL-001 | <i>Version</i> | 1.0.0 |
| <i>Issue Date</i> | 2025-05-14 | <i>Certificate Type</i> | EN 10204 3.1 |

Business Transaction

| Order | | Delivery | |
|----------------------|------------|--------------------|------------|
| <i>Order ID</i> | PO-78901 | <i>Delivery ID</i> | DN-56789 |
| <i>Position</i> | 10 | <i>Position</i> | 1 |
| <i>Date</i> | 2025-04-20 | <i>Date</i> | 2025-05-12 |
| <i>Quantity</i> | 5000 kg | <i>Quantity</i> | 5000 kg |
| Specification | | | |
| <i>Name</i> | EN 10025-2 | <i>Revision</i> | 2019 |

Product Information

| | |
|--------------------------|-------------------------|
| <i>Product Name</i> | Structural Steel S355J2 |
| <i>Batch ID</i> | H-10987-02 |
| <i>Surface Condition</i> | Hot-rolled |
| <i>Production Date</i> | 2025-05-09 |
| <i>Country of Origin</i> | DE |

Customs Classification

| | |
|-----------------------------|--|
| <i>HS Code</i> | 720839 |
| <i>Standard Description</i> | Flat-rolled products of iron or non-alloy steel, of a width of 600 mm or more, hot-rolled, not clad, plated or coated |
| <i>CN8 (EU)</i> | 72083900 |
| <i>Description (EU)</i> | Flat-rolled products of iron or non-alloy steel, of a width of 600 mm or more, hot-rolled, not clad, plated or coated, of a thickness of 4.75 mm or more |

Product Norms

| | |
|--------------------|-------------------|
| <i>Designation</i> | EN 10025-2 (2019) |
| <i>Grade</i> | S355J2 |

Material Designations

| | |
|--------------------|--------|
| <i>System</i> | EN |
| <i>Designation</i> | 1.0577 |

Product Shape

| | |
|-----------------|----------|
| <i>Form</i> | RoundBar |
| <i>Length</i> | 6000 mm |
| <i>Diameter</i> | 50 mm |

Delivery Conditions

Bundles

| | |
|------------------|--------------|
| <i>Type</i> | Hexagonal |
| <i>Quantity</i> | 5 |
| <i>Material</i> | Wire binding |
| <i>Condition</i> | Good |

Heat Treatment

| <i>Process</i> | <i>Lot</i> | <i>Furnace</i> | <i>Date</i> |
|----------------|-------------------|----------------|-------------|
| Normalizing | HT-2024-11-15-B47 | FURNACE-03 | 2024-11-15 |

Stages

| <i>Stage</i> | <i>Temperature</i> | <i>Duration</i> | <i>Cooling</i> | <i>Atmosphere</i> |
|---------------|--------------------|-----------------|----------------|-------------------|
| Austenitizing | 920 C | | | |

Chemical Analysis

| | |
|------------------------|-------------------|
| <i>Heat Number</i> | H-10987 |
| <i>Melting Process</i> | EAF+LF |
| <i>Casting Date</i> | 2025-05-08 |
| <i>Casting Method</i> | ContinuousCasting |
| <i>Sample Location</i> | Ladle |

Elements

| <i>Symbol</i> | C | Mn | Si | P | S | N | CEV |
|---------------|----------|-----------|-----------|----------|----------|----------|------------|
| <i>Unit</i> | % | % | % | % | % | % | % |
| <i>Min</i> | - | - | - | - | - | - | - |
| <i>Max</i> | 0.2 | 1.6 | 0.5 | 0.025 | 0.02 | 0.009 | 0.45 |
| <i>Actual</i> | 0.18 | 1.45 | 0.25 | 0.018 | 0.012 | 0.006 | 0.42 |

Formula Definitions

CEV = C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15: 0.42%

Mechanical Properties

| Property | Symbol | Actual | Minimum | Maximum | Method | Status |
|--|--------|-------------|----------------|-------------------|---------------|--------|
| Tensile Strength 3 specimens tested | | | | | EN ISO 6892-1 | - |
| Individual Values | | # 1 | # 2 | # 3 | | |
| Value [MPa] | | 508 | 510 | 512 | | |
| Statistics | | Mean | Min/Max | Std Dev | | |
| | | 510.0 | 508 / 512 | | | |
| Yield Strength 3 specimens tested | | | | | EN ISO 6892-1 | - |
| Individual Values | | # 1 | # 2 | # 3 | | |
| Value [MPa] | | 378 | 380 | 382 | | |
| Statistics | | Mean | Min/Max | Std Dev | | |
| EN ISO 6892-1 statistical analysis | | 380.0 | 378 / 382 | | | |
| Elongation after fracture 3 specimens tested | | | | | EN ISO 6892-1 | - |
| Individual Values | | # 1 | # 2 | # 3 | | |
| Value [%] | | 21.5 | 22.0 | 22.5 | | |
| Statistics | | Mean | Min/Max | Std Dev | | |
| EN ISO 6892-1 statistical analysis | | 22.0 | 21.5 / 22.5 | 0.5 (Sample) | | |

Validation

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

Individual Statements

- ✓ Material is of German origin
- ✓ 100% of the material is from European Union sources
- ✓ Material is of non-Russian origin (*EU Regulation No. 833/2014*)
- ✓ Material is conflict-free and sourced responsibly (*OECD Due Diligence Guidance*)

Validated By

| Name | Title | Department | Date |
|--------------|-------------------|-------------------|------------|
| Johann Weber | Quality Inspector | Quality Assurance | 2025-05-14 |

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

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