



CRENLO ENGINEERING STANDARD

1. PURPOSE: To define documentation requirements for Charpy Impact Controlled Steel (Defined as ROPS).

2. REQUIREMENTS:

When supplying ROPS parts or material, the Supplier shall send the actual Mill test report or a Certified test report, to the Crenlo Metallurgical Lab, prior to receipt of shipment at Crenlo.

Mill/Certified test reports shall be submitted on **each** new heat number:

- For **each** thickness of raw material (coil, sheet, or plate)
- For **each** thickness & **size** of a tube or shape produced
- For **each** molten lot of a casting

Upon receipt of this test report, Crenlo will review the certificate for compliance to the required specification.

The **Mill/Certified test report** shall include:

- Crenlo part number
- Material Specification
- Heat number (for rolled shapes, ID stamp required)
- Actual Physical properties
- Actual Chemical results
- Charpy test coupon size
- Test direction (longitudinal or transverse, sheet and plate only)
- Name and location of the Fabricator or Service Center: raw material or shape
- Name and location of Producing Steel Mill

When material is purchased to the Customer's Specification, and is from an approved source, Mill test reports are acceptable for submittal by the Supplier. If material is not purchased to the Customer's specification, but is considered to satisfy the ROPS requirements, the Supplier is required to submit a post process Certified test report.

Final rolling or shaping processes shall be completed before test samples are taken. Samples taken after the post processing will more truly represent the material's **mechanical properties** for the finished part.

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CONTROLLED DOCUMENT
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EFFECTIVE DATE: 06-09-04	REV. 3	TITLE: ROPS MILL TEST REPORT REQUIREMENTS OWNER: QUALITY ASSURANCE	ES - 229
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To eliminate delay, the supplier shall send the Mill/Certified test reports prior to receipt of shipment at Crenlo to:

CRENLO, INC.
1600 4th Ave. N.W.
ROCHESTER, MN. 55901

Attn: Metallurgical Lab
Phone: 1-507-287-3493
Fax: 1-507-287-3405

When shipping ROPS parts or material to Crenlo, at a minimum, the Packing Slip shall include:

- Part number
- Quantity per heat number (Weight, Pieces, etc)
- Number of containers (pallets, crates, etc.)
- Mill/Certified test report per heat

Note: Do not mix heat numbers within a part container.

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