



CERTIFICATE OF TYPICAL ANALYSIS

ORDER # : 167448
PART NUMBER: 245011135

CUSTOMER NAME: ESAB ASIA PACIFIC PTE LTD
38 JOO KOON CIRCLE
SINGAPORE 629063

CUSTOMERS ORDER NO: 30089
DIAMETER & LENGTH: 1/16
TRADE NAME: DUAL SHIELD
TYPE : II 80-Ni1H4
WEIGHT: 38,016
LOT NO: 80283
CLASSIFICATION : E 81T1-Ni1MH4
A5.29-98, ASME SFA 5.29

CHEMICAL ANALYSIS :

| | PROPERTIES | SPEC. REQUIREMENTS |
|------------|------------|--------------------|
| Carbon | 0.06 | 0.12 Max |
| Manganese | 1.26 | 1.50 Max |
| Silicon | 0.31 | 0.80 Max |
| Phosphorus | 0.012 | 0.03 Max |
| Sulphur | 0.008 | 0.03 Max |
| Chromium | 0.04 | 0.15 Max |
| Nickel | 0.94 | .80 1.10 |
| Molybdenum | 0.01 | 0.35 Max |
| Vanadium | 0.02.01 | 0.05 Max |
| Copper | 0.04 | 0.03 Max |

RADIOGRAPHY :

XRAY Satisfactory

DIFFUSIBLE HYDROGEN :

AVERAGE : .8 (ml/100gr Avg).
GAS USED : 75AR/25CO2

TENSILE REQUIREMENTS:

AS WELDED

| | | | |
|--------------------|-------|--------------------|--------|
| MIN YIELD(psi) : | 68000 | | |
| MIN YIELD(MPa) : | 470 | | |
| MIN TENSILE(psi) : | 80000 | MAX TENSILE(psi) : | 100000 |
| MIN TENSILE(MPa) : | 550 | MAX TENSILE(MPa) : | 690 |
| MIN ELONG : | 19.0 | | |

TENSILE RESULTS :

AS WELDED

GAS USED : 75AR/25CO2
 CALCULATE YIELD(psi) : 85500
 CALCULATE YIELD(Mpa) : 590
 CALCULATE TENSILE(psi) : 92200
 CALCULATE TENSILE(Mpa) : 636
 % ELONGATION : 28.0
 % REDUCTION OF AREA : 73.6

The ESAB Group, Inc.
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By: K. Wildasin
K. Wildasin, Supervisor, Q.A. Services





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CHARPY V-NOTCH REQUIREMENTS:

AS-WELDED :

CVN TEMPERATURE (F) : -20
CVN TEMPERATURE (C) : -29
CVN AW MIN (FT-LBS) : 20
CVN AW MIN (JOULES) : 27

CHARPY V-NOTCH RESULTS:

AS-WELDED :

| TEMP (F) | FT-LBS | TEMP (C) | JOULES | GAS |
|----------|--------|----------|--------|------------|
| -20 | 73 | -29 | 99 | 75AR/25CO2 |

FILLET : Satisfactory

This material is certified to be free of any mercury.

The undersigned certifies that the product supplied will meet the requirements of the applicable AWS Filler Metal Specification when tested in accordance with that specification, and that no significant change has been made in the elements described in the qualification approval

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