

Figure 1; Data Provided by Customer

Test no.: 138 / IMT M 700  
 Item description: Plate with butt weld T=20 mm,  
 Material type and grade: S355J2+N

Figure 2; Summary of SENB Results

<b>Sample Preparation</b>	<b>ID</b>	<b>15482-W1</b>	<b>15482-W2</b>	<b>15482-W3</b>
	<b>Location</b>	WCL	WCL	WCL
	<b>B</b>	17.23 mm	17.23 mm	17.26 mm
	<b>W</b>	34.41 mm	34.46 mm	34.40 mm
	<b>a<sub>0</sub></b>	16.79 mm	16.65 mm	16.69 mm
	<b>a<sub>0</sub>/W</b>	0.488	0.483	0.485
	<b>Δa</b>	0.42 mm	-	-
	<b>Final Pre-crack load (Ff)</b>	10.00 kN	10.00 kN	10.00 kN
	<b>R-Ratio</b>	0.10	0.10	0.10
	<b>Achieved Maximum Load</b>	No	Yes	Yes
<b>Pre-crack Validity</b>	Valid	Valid	Valid	
<b>Material Properties</b>	<b>UTS at ambient temp.</b>	657 MPa	657 MPa	657 MPa
	<b>0.2% YS at ambient temp.</b>	631 MPa	631 MPa	631 MPa
	<b>0.2% YS at test temp.</b>	662 MPa	662 MPa	662 MPa
	<b>Young's Modulus (E)</b>	210 GPa	210 GPa	210 GPa
	<b>Poissons Ratio</b>	0.3	0.3	0.3
<b>Test details &amp; post-test analysis</b>	<b>Test Temperature (T)</b>	-20.0 °C	-20.0 °C	-20.0 °C
	<b>Span (S)</b>	143.0 mm	143.0 mm	143.0 mm
	<b>Knife edge thickness (z)</b>	0.00 mm	0.00 mm	0.00 mm
	<b>Elastic K Rate</b>	1.15 MPa√m/s	1.14 MPa√m/s	1.13 MPa√m/s
	<b>Max Load (F<sub>m</sub>)</b>	31.82 kN	32.94 kN	32.56 kN
	<b>V<sub>plastic</sub></b>	1.18 mm	2.48 mm	2.26 mm
	<b>A<sub>plastic</sub></b>	34.47 kN.mm	77.70 kN.mm	69.70 kN.mm
	<b>CTOD (δ)</b>	0.39 mm	0.78 mm	0.71 mm
	<b>Result type</b>	u	m	m