MATERIAL DATA SHEET	**MDS - Y50**	**Rev. 4**

TYPE OF MATERIAL: Structural Steel with documented through thickness properties

PRODUCT	***STANDARD***	***GRADE***	
Plates	EN 10225	S500G2+Q/G2+M[1)]	

SCOPE	This MDS specifies the selected options in the referred standard and modified requirements which shall supersede the corresponding requirements in the referred standard.
STEEL GRADE	Grade S460G2+Q/G2+M shall be modified to Grade S500G2+Q/G2+M as specified by this MDS.
QUALIFICATIONS	Base material information, shall be submitted with the bid/ be established prior to delivery. The documentation of base material shall cover both delivered and PWHT condition and shall include strain ageing tests (ref. option 12), typical tensile test results for plates and weldability tests according to Annex E (option 18) within each of the following thickness ranges that are relevant for the order: 25<t ≤ 40mm 40<t ≤ 63mm 63<t ≤ 100mm 100<t ≤ 150mm Other thickness ranges related to same chemistry and manufacturing process may apply. In such cases the thickest material in the range shall be tested. The results from PWHT condition shall also meet the specified requirements. CTOD testing shall be included for weldability testing for t > 40 mm and shall meet a requirement of min. 0,25 mm in as welded condition, and min 0,20 in PWHT condition unless lower values have been accepted by the purchaser. CTOD testing for thicknesses below 40 mm may be required on the basis of special design criteria.
HEAT TREATMENT/ DELIVERY CONDITION	
CHEMICAL COMPOSITION	Option 6 and 9, Ni content min. 0,50% Other limits may be accepted after special agreement
TENSILE TESTING	Mechanical properties given in Table 5c for Grade S460G2+Q/S460G2+M shall be modified as follows: Yield Strength (min.) : 500 - 600 MPa (thicknesses ≤75 mm) Tensile Strength : 600 - 700 MPa (thicknesses ≤ 75 mm)
IMPACT TESTING	
EXTENT OF TESTING	Option 13
SURFACE CONDITION	
NON DESTRUCTIVE TESTING (NDT)	
SURFACE PROTECTION	All surfaces shall receive a preliminary protective primer coat. Blast cleaning shall comply with ISO 8501-1 Sa 2½ and the surface shall remain at Sa 2½ until application of the primer. The primer shall consist of 1 coat zinc ethyl silicate primer with 15 microns. Measured on a plane polished steel or glass test plate the DFT shall be maximum 25 microns.
CERTIFICATE	EN 10 204 Type 3.1B

[1)] Note. This steel grade is not included in EN 10225.