

Laboratory	Testing Laboratory, Welspun Corp Ltd., Dahej Facility, Vadadla, Dahej Road, Tal. Vagra, Bharuch, Gujarat		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Chemical Testing	Issue Date	17.10.2016
Certificate Number	T-2363	Valid Until	16.10.2018
Last Amended on	-	Page	1 of 3

S. No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
I. METALS & ALLOYS				
1.	Ferrous Carbon Steel + Low Alloy Steel	Carbon	ASTM E415-15	0.01% to 1.5000 %
		Sulphur		0.0001% to 0.0500 %
		Phosphorus		0.0050 % to 0.0500 %
		Manganese		0.5000 % to 4.0000 %
		Silicon		0.0100 % to 1.0000 %
		Chromium		0.0050 % to 2.0000 %
		Nickel		0.0050 % to 2.0000 %
		Molybdenum		0.0010 % to 1.0000 %
		Titanium		0.0010 % to 0.2000 %
		Niobium		0.0050 % to 0.2000 %
		Vanadium		0.0020 % to 0.3000 %
		Copper		0.0050 % to 0.5000 %
		Aluminium		0.0050 % to 0.1500 %
		Boron		0.0001 % to 0.0100 %
		Nitrogen		0.0010 % to 0.0100 %
		Calcium		0.0001 % to 0.0100 %

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Last Amended on	-	Page	2 of 3

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II. PAINTS & SURFACE COATING				
1.	Epoxy Powder	Gel Time	CAN/CSA.Z.245.20-SERIES-14	12 s to 120 s
		Cure Time (% Of Cure)		(50 % to 100 %) Curing
		Moisture Content		0.1 % to 1 %
		Glass Transition Temperature		40 °C to 120 °C
		Heat Of Reaction – Δ H		10 J/g to 100 J/g
2.	Epoxy Coating Film	% Of Cure	CAN/CSA.Z.245.20-SERIES-14	50 % to 100 %
3.	Cured Liquid Epoxy Coating	Cure Test	ISO 15741: 2001 / API RP 5L2: 2015	Qualitative
		Pin Hole	API RP 5L2: 2015/ ISO15741: 2001	Qualitative
		Water Test	API RP 5L2: 2015	Qualitative
4.	External Coating (3lpe/3lpp/Epoxy)	Adhesion (Hot Water Soak)	CAN/CSA.Z.245.20-Series 14	Qualitative
		Cathodic Disbondment Test	CAN/CSA.Z.245.20-Series 14	0.01 mm to 10 mm
5.	Submerged Arc Welding Flux	Flux Moisture Analysis	AWS A4.4M 2001(R2006)	0.001 % to 0.1 % of H ₂ O
6.	Submerged Arc Welds	Diffusible Hydrogen Analysis	ISO 3690: 2012	0.05 ml/100 g to 5 ml/100 g weld metal

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Last Amended on	-	Page	3 of 3

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III PLASTICS AND RESINS				
1.	Polyethylene Or Polypropylene Based Co-Polymer Adhesive, Polyethylene, Polypropylene Sheet Or Molded Material Sample	Specific Gravity	ASTM D 792-13	0.8 to 1.3
		Melt Flow Rate Test	ASTM D 1238-13 / ISO 1133-11	0.2 g/10 min to 3.0 g/10 min
2.	Polyethylene, Polypropylene Sheet Or Molded Material Sample	Oxidative Induction Time	ASTM D3895: 2014	10 min to 50 min
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