

**RANDACK FASTENERS INDIA PVT. LTD.**

Gat No 1197, Near Ghotawade Phata, Village Pirangut, Taluka Mulshi, Dist :Pune, 412108.

**3.1 CERTIFICATE AS PER EN 10204****Customer: Inox Wind Limited****T.C. No.: 2383****Date: 2017-01-03****PO No: 5100009562****Date: 2016-04-03****Part Description: BOLT En 14399-4-M36X290-10.9-Hv-tzn****RFI CO No: CON/16-17/00001****Date: 2016-04-04****Ref Std./Drawing No.: EN 14399-4****Item Code: FTNSCRW029****Qty: 820 nos****Material: ISO 898-1/10.9****A. Chemical Composition:****Reference STD: DIN EN 10083-3 42CrMo4 1.7225**

Elements		Heat No.	C %	Si %	Mn %	P %	S %	Cr %	Mo %	Remark
Sr.No.	Batch Code	Min	0.38	0	0.6	0	0	0.9	0.15	
		Max	0.45	0.40	0.90	0.025	0.035	1.20	0.30	
1	DJU/DQV	FC2-376-377,FC3-186	0.4260	0.1511	0.7523	0.0087	0.0092	1.0525	0.2069	Passed
2	DJU/DQA	FC2-358-360/FC3-184	0.4160	0.1523	0.7365	0.0081	0.0069	1.0748	0.1980	Passed
3	DJU/DPX	FC2-355-357 , FC3-183	0.4082	0.1540	0.7345	0.0088	0.0072	1.0835	0.2040	Passed

**B. Mechanical Properties :****Reference STD: ISO 898-1 10.9**

Parameters		Heat No.	0.2% Proof Stress (N/mm <sup>2</sup> )	U.T.S. (N/mm <sup>2</sup> )	Elongation (%)	Reduction (%)	Proofload	Impact @ -20C	Hardness	Remark
Sr.No.	Batch Code	Min	940	1040	9	48		27J	320	
		Max							380	
1	DJU/DQV	FC2-376-377,FC3-186	986.53	1086.57	15.09	64	678	78,80,80 Avg:79.33		Passed
2	DJU/DQA	FC2-358-360/FC3-184	952.85	1093.16	61.6	58.08	678	28,28,28 Avg:28		Passed
3	DJU/DPX	FC2-355-357 , FC3-183	1025.64	1115.56	16.71	56.19	678	84,82,86 Avg:84		Passed

**Torque Tension test results:**

Sr.No.	Batch No.	Applied torque in NM	Force in KN	Coefficient of friction( $\mu$ )	Result
1	DJU/DQV	2800	659.4	-	Passed
2	DJU/DQA	2800	602.1	-	Passed
3	DJU/DPX	2800	570.4	-	Passed

**Wedge test results:**

Sr.No.	Batch No.	Required Tensile strength under wedge load(Rm) Mpa min.	Observed Tensile strength under wedge load(Rm) Mpa	Result
1	DJU/DQV	1040 min	1164	Passed
2	DJU/DQA	1040 min	1164	Passed
3	DJU/DPX	1040 min	1164	Passed

**Non Destructive Testing**

Sr.No.	Parameter	Required	Observation	Remark
1	MPI Testing	As per MPI procedure no. RFI/MT/01 Rev.05	100% done & no record-able indication observed	OK

**Other Details**

Sr.No.	Parameter	Required	Observation	Result
1	Dimensions	As per drawing	Refer dimesion report attached	OK
2	Identification	MFG code, Grade, batch code, Year of MGF	RFI 10.9 DQV, DQA, DPX & 16	OK

**The results of tests are satisfactory.**

Prepared By,

Checked By,

Approved By,

sachin pawar  
Asst.Manager-QAsachin pawar  
Manager EngineeringBhimrao Kulkarni  
Jr.Engineer - QA