



伊莱特能源装备股份有限公司

Iraeta Energy Equipment Co., Ltd.

产品质量证明书

Product Quality Certificate

日期/Date

2025 年/Year 1 月/Month 11 日/Day

订货单位 Purchaser	Welspun New Energy Limited		材料名称 Grade	S355NL	技术条件	TS-0005698_Technical Specification for Tower	
工件号 Part No.	24-3765-11	24-3765-12	数量 Quantity	8	Specification		
	24-3765-13	24-3765-14	炉号 Heat No.	SI24-4260	尺寸 Size	4495/3850*175/135	
	24-3765-15	24-3765-16	锻造比 Forging ratio	9.18	交货状态 Delivery condition	正火 N	
24-3765-17	24-3765-18						
热处理炉号 Heat treatment No.	245-2-255	试样编号 Sample No.	24-3765-14 (245-3507)		报告编号 Report No.	2024-3765-002	

化学成分/Chemical composition(%) (成品分析Product Analysis)

元素Element	C	Si	Mn	P	S	Cu	Alt	Cr	Mo	Ni	V	Ti	Nb	N	CEV
要求值 Requirement	≤ 0.20	≤ 0.55	0.85~1.75	≤ 0.030	≤ 0.025	≤ 0.60	≥ 0.015	≤ 0.35	≤ 0.13	≤ 0.55	≤ 0.14	≤ 0.06	≤ 0.06	≤ 0.017	≤ 0.45
实测值 Actual	0.14	0.23	1.33	0.008	0.001	0.05	0.027	0.09	0.005	0.03	0.05	0.003	0.021	0.0050	0.40

力学性能/Mechanical property

项目 Items	试验方向 Direction	抗拉强度 Tensile strength Rm(MPa)	屈服强度 Yield strength ReH(MPa)	伸长率 Elongation A5(%)	断面收缩率 Area reduction Z(%)	冲击功 Impact KV ₂ (J) -50℃
要求值 Requirement		450~600	≥285	≥21	/	≥27
实测值 Actual	0°纵向/L	525	360	32.5	76	179.8-182.1-166.9
	120°纵向/L	519	359	32.5	78	168.5-170.4-173.6
	240°纵向/L	518	355	32.0	77	172.6-183.4-167.5
	0°横向/T	524	334	32.5	78	152.8-146.9-146.7
	120°横向/T	525	341	32.0	77	146.2-141.9-139.9
	240°横向/T	529	360	32.5	76	148.9-151.6-154.3
	/	/	/	/	/	/

微观检查/Microstructure examination

非金属夹杂物(级) Non-metal Inclusion(grade) ISO 4967										平均晶粒度(级) Average grain size(grade) ISO 643	微观组织 Microstructures
类型 Type	A	B	C	D	DS					>6	铁素体+珠光体 Ferrite+Pearlite
要求值 Requirement	≤2.0	≤1.0	≤2.0	≤1.0	≤2.0	≤1.0	≤2.0	≤1.0	≤1.5		
实测值 Actual	0	0	0	0	0	0	0	0.5	0		

尺寸检测/Dimension check&无损检测/NDT

尺寸检测/Dimension check	OK	无损检测/NDT result	OK
----------------------	----	-----------------	----

声明/Notice

兹确认本证明书所列的材料已按照规范进行检验,符合规定要求;所出具的资料符合EN10204 3.1要求。
We hereby certify that the material herein has been tested with the above specification and also with the requirement called for by the above order; The certificate conforms to the EN10204 3.1 requirements.

质量监督部门盖章
Stamp of Quality Control Depart.

检验结果 Inspection result	合格 OK	制表人 Tabulator	审核人 Reviewed by	批准人 Approved by
---------------------------	-------	------------------	--------------------	--------------------