

# Shanghai G&T Industry CO., LTD

Certified Material Test Report to BS EN 10204-2004 3.1

**SUPPLIER:** Shanghai G&T Industry CO., LTD

**CERTIFICATE NO:**

GT20230918-028

**CUSTOMER:**

Po No.:

23C1114

Product	Stud Bolt	Material Grade	A193-B7	Specification	ASTM A193/ A193M-2020	Date	2023.09.18
Size	M22	Quantity (Pcs)	85	HEAT NO:	S12202351XX	Mark	GT B7

**Chemical Composition.**

SPECIFICATION:

ASTM A193/A193M-2020

CHEMIST	C %	Mn%	P%	S %	Si %	Cr%	V%	Mo%	Al	OTHER
SPE:	0.38	0.75	MAX	MAX	0.15	0.80	/	0.15	/	/
	0.48	1.00	0.035	0.040	0.35	1.10	/	0.25	/	/
TEST:	0.41	0.81	0.012	0.002	0.28	0.98	/	0.19	/	/

**DIMENSIONAL INSPECTIONS**

SPECIFICATION:

ASME B18.31.1M

ITEM	Size	Quantity(pcs)	Go/No-go Gauge	Dimensions	Surface	Conclusion
1	M22 x 1000mm	85	6g	PASSED	PASSED	Qualified

**MECHANICAL PROPERTIES**

SPECIFICATION:

ASTM A193/A193M-2020

CHARACTERISTICS	TEST METHOD	SPECIFIED	ACTUAL RESULT	Conclusion
Tensile Strength Rm	ASTM A193/A193M-2020	min 860 MPa	876	Qualified
Yield Strength Rp02		min 720 MPa	744	Qualified
Elongation in		min 16%	21	Qualified
Reduction of area		min 50%	52	Qualified
HARDNESS		max 321HBW/35HRC	283	Qualified

Quenching Temperature	Quenching Time	Quenchant	Temper Temperature	Temper Time
860°C	80 minutes	Oil	640°C	70 minutes

**Anti-Corrosion Treatment .**

Coating Type	Black_oxide		Pre-treatment/Base coat		—	
Coating Code	—	Color: —	Top Coating		—	
Inspect item	Pre-tre./ Basecoat DFT	Total Coating DFT	Adhesion Test	Solvent Test	Surface	Hardness
Requirements	—	—	—	—	—	—
Results	—	—	—	—	—	—
Conclusion	Qualified					

PARTS ARE MANUFACTURED AND TESTED IN ACCORDANCE WITH ASTM A193/A193M  
 ALL TESTS IN ACCORDANCE WITH THE METHODS PRESCRIBED SPECIFICATION. WE CERTIFY  
 THAT THIS DAIA IS A TRUE REPRESENTATION OF INFORMATION PROVIDED BY THE MATERIAL  
 SUPPLIER AND OUR TESTING LABORATORY.  
 MFG ISO9001 CERTIFICATE NO:04308Q12140R0M



Xu jing  
 (SIGNATURE OF Q.A. LAB MGR )  
 (Shanghai G&T Industry CO., LTD )

We hereby certify that the foregoing date is a true copy of the quality certificate  
 issued by the manufacturer from the originals which rest in our files.

# Shanghai G&T Industry CO., LTD

## Certified Material Test Report to BS EN 10204-2004 3.1

**SUPPLIER:** Shanghai G&T Industry CO., LTD

**CERTIFICATE NO:** GT20230918-029

**CUSTOMER:**

**Po No.:** 23C1114

Product	Heavy Hex Nut	Material Grade	A194-2H	Specification	ASTM A194/ A194M-2020	Date	2023.09.18
Size	M22	Quantity (Pcs)	1200	HEAT NO:	G190016312	Mark	GT 2H

**Chemical Composition.**

**SPECIFICATION:**

**ASTM A194/A194M-2020**

CHEMIST	C %	Mn%	P%	S %	Si %	Cr%	V%	Mo%	Al	OTHER
SPE:	MIN	MAX	MAX	MAX	MAX	/	/	/	/	/
	0.40	1.00	0.040	0.050	0.40	/	/	/	/	/
TEST:	0.44	0.64	0.010	0.009	0.19	/	/	/	/	/

**DIMENSIONAL INSPECTIONS**

**SPECIFICATION:**

**ASME B18.2.4.2M**

ITEM	Size	Quantity(pcs)	Go/No-go Gauge	Dimensions	Appearance	Conclusion
2	M22	1200	6H	PASSED	PASSED	Qualified

**MECHANICAL PROPERTIES**

**SPECIFICATION:**

**ASTM A194/A194M-2020**

CHARACTERISTICS	TEST METHOD	SPECIFIED	ACTUAL RESULT	Conclusion
Nut Proof-load	ASTM A194/A194M-2020	365.1 KN	365.1 KN	Qualified
Hardness		248-327 HBW	264	Qualified
after 24h treatment		≥179 HBW	199	Qualified

Quenching Temperature	Quenching Time	Quenchant	Temper Temperature	Temper Time
860°C	80 minutes	Oil	540°C	70 minutes

**Anti-Corrosion Treatment .**

Coating Type	Black_oxide		Pre-treatment/Base coat		—	
Coating Code	—		Color: —		Top Coating	
Inspect item	Pre-tre./ Basecoat DFT	Total Coating DFT	Adhesion Test	Solvent Test	Surface	Hardness
Requirements	—	—	—	—	—	—
Results	—	—	—	—	—	—
Conclusion	Qualified					

PARTS ARE MANUFACTURED AND TESTED IN ACCORDANCE WITH ASTM A194/A194M  
 ALL TESTS IN ACCORDANCE WITH THE METHODS PRESCRIBED SPECIFICATION. WE CERTIFY  
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# Shanghai G&T Industry CO., LTD

## Certified Material Test Report to BS EN 10204-2004 3.1

SUPPLIER: Shanghai G&T Industry CO., LTD

CERTIFICATE NO: GT20230918-030

CUSTOMER:

Po No.: 23C1114

Product	Heavy Hex Nut	Material Grade	A194-2H	Specification	ASTM A194/ A194M-2020	Date	2023.09.18
Size	M24	Quantity (Pcs)	600	HEAT NO:	G031002577	Mark	GT 2H

### Chemical Composition.

### SPECIFICATION:

ASTM A194/A194M-2020

CHEMIST	C %	Mn%	P%	S %	Si %	Cr%	V%	Mo%	Al	OTHER
SPE:	MIN	MAX	MAX	MAX	MAX	/	/	/	/	/
	0.40	1.00	0.040	0.050	0.40	/	/	/	/	/
TEST:	0.44	0.66	0.016	0.004	0.18	/	/	/	/	/

### DIMENSIONAL INSPECTIONS

### SPECIFICATION:

ASME B18.2.4.2M

ITEM	Size	Quantity(pcs)	Go/No-go Gauge	Dimensions	Appearance	Conclusion
3	M24	600	6H	PASSED	PASSED	Qualified

### MECHANICAL PROPERTIES

### SPECIFICATION:

ASTM A194/A194M-2020

CHARACTERISTICS	TEST METHOD	SPECIFIED	ACTUAL RESULT	Conclusion
Nut Proof-load	ASTM A194/A194M-2020	425.4 KN	425.4 KN	Qualified
Hardness		248-327 HBW	270	Qualified
after 24h treatment		≥179 HBW	200	Qualified

Quenching Temperature	Quenching Time	Quenchant	Temper Temperature	Temper Time
860°C	80 minutes	Oil	540°C	70 minutes

### Anti-Corrosion Treatment .

Coating Type	Black_oxide		Pre-treatment/Base coat		—	
Coating Code	—	Color: —	Top Coating		—	
Inspect item	Pre-tre./ Basecoat DFT	Total Coating DFT	Adhesion Test	Solvent Test	Surface	Hardness
Requirements	—	—	—	—	—	—
Results	—	—	—	—	—	—
Conclusion	Qualified					

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