

# ASTM A 194M 16

# ALLOY STEEL

NUT MATERIAL FOR HIGH TEMPERATURE SERVICE

ASTM A 194M 16 covers a variety of carbon, alloy and martensitic stainless steel nuts. It also covers austenitic steel nuts. These nuts are intended for high-pressure and high-temperature service or both. Austenitic stainless steel may be solution annealed and strain hardened. ASTM A 194M 16 is expressed in both inch-pound units and in SI units.

## Chemical Properties

C	Si	Mn	P	S	Cr	Mo	V	Al
0.36-0.47	0.15-0.35	0.45-0.70	0.035 Max	0.040 Max	0.80-1.15	0.50-0.65	0.25-0.35	0.015 Max

## Mechanical Properties

### Proof Load Using Threaded Mandrel- METRIC (kN)

### Hardness

TYPE	M6	M8	M10	M12	M14	M16	BHN	HRB	HRC
HEAVY HEX	29.2	44.1	69.9	101.6	138.6	189.2		Min	
HEX	20.8	37.9	60	87.3	119	162.5	248-352	-	24-38

TYPE	M20	M22	M24	M27	M30	M36
HEAVY HEX	295.2	365.1	425.4	553.4	676	984.5
HEX	253.6	313.6	365.4	475.1	580.6	845.6

## Heat Treatment

Quenched & Tempered@650°C.

## Equivalent Designation

CUSTOMER ASSISTANCE : [customer@TorqBolt.com](mailto:customer@TorqBolt.com)