

常用工程材料属性 (若对数据存在疑问, 请对照其他资料核实)

材料名称	弹性模量(N/m ²)	泊松比	质量密度(kg/m ³)	抗剪模量(N/m ²)	张力强度(N/m ²)	屈服强度(N/m ²)	热膨胀系数(/Kelven)	比热(J/(kg.K))	热导率(W/(m.k))
Ductile Iron (SN)	1.20E+11	0.310	7.90E+03	7.70E+10	8.62E+08	5.51E+08	1.10E-05	4.50E+02	75.00
KTH300-06 (GB)	1.90E+11	0.270	7.30E+03	8.60E+10	3.00E+08	0.00E+00	1.20E-05	5.10E+02	47.00
KTH350-10 (GB)	1.90E+11	0.270	7.30E+03	8.60E+10	3.50E+08	2.00E+08	1.20E-05	5.10E+02	47.00
KTZ450-06 (GB)	1.90E+11	0.270	7.30E+03	8.60E+10	4.50E+08	2.70E+08	1.20E-05	5.10E+02	47.00
KTZ550-04 (GB)	1.90E+11	0.270	7.30E+03	8.60E+10	5.50E+08	3.40E+08	1.20E-05	5.10E+02	47.00
KTZ650-02 (GB)	1.90E+11	0.270	7.30E+03	8.60E+10	6.50E+08	4.30E+08	1.20E-05	5.10E+02	47.00
KTZ700-02 (GB)	1.90E+11	0.270	7.30E+03	8.60E+10	7.00E+08	5.30E+08	1.20E-05	5.10E+02	47.00
KTB350-04 (GB)	1.20E+11	0.310	7.90E+03	7.70E+10	3.50E+08	0.00E+00	1.10E-05	4.50E+02	75.00
KTB380-12 (GB)	1.20E+11	0.310	7.90E+03	7.70E+10	3.80E+08	1.70E+08	1.10E-05	4.50E+02	75.00
KTB400-05 (GB)	1.20E+11	0.310	7.90E+03	7.70E+10	4.40E+08	2.20E+08	1.10E-05	4.50E+02	75.00
KTB450-07 (GB)	1.20E+11	0.310	7.90E+03	7.70E+10	4.50E+08	2.60E+08	1.10E-05	4.50E+02	75.00
Gray Cast Iron (SN)	6.62E+10	0.270	7.20E+03	5.00E+10	1.52E+08	0.00E+00	1.20E-05	5.10E+02	45.00
HT100 (GB)	1.08E+11	0.123	7.10E+03	4.80E+10	1.50E+08	0.00E+00	8.20E-06	5.10E+02	45.00
HT150 (GB)	1.16E+11	0.194	7.00E+03	4.86E+10	1.50E+08	0.00E+00	1.01E-05	5.10E+02	45.00
HT200 (GB)	1.48E+11	0.310	7.20E+03	5.66E+10	2.00E+08	0.00E+00	1.10E-05	5.10E+02	45.00
HT250 (GB)	1.38E+11	0.156	7.28E+03	5.98E+10	2.50E+08	0.00E+00	8.20E-06	5.10E+02	45.00
HT300 (GB)	1.43E+11	0.270	7.30E+03	5.66E+10	3.00E+08	0.00E+00	1.12E-05	5.10E+02	45.00
HT350 (GB)	1.45E+11	0.270	7.30E+03	5.66E+10	3.50E+08	0.00E+00	1.12E-05	5.10E+02	45.00
Malleable Cast Iron	1.90E+11	0.270	7.30E+03	8.60E+10	4.14E+08	2.76E+08	1.20E-05	5.10E+02	47.00
QT400-15	1.61E+11	0.274	7.01E+03	6.32E+10	4.00E+08	2.50E+08	1.29E-05	5.10E+02	47.00
QT400-18	1.61E+11	0.274	7.01E+03	6.32E+10	4.00E+08	2.50E+08	1.29E-05	5.10E+02	47.00
QT450-10	1.69E+11	0.257	7.06E+03	6.76E+10	4.50E+08	3.10E+08	1.01E-05	5.10E+02	47.00
QT500-7	1.62E+11	0.293	7.00E+03	6.27E+10	5.00E+08	3.20E+08	9.10E-06	5.10E+02	47.00
QT600-3	1.69E+11	0.286	7.12E+03	6.56E+10	6.00E+08	3.70E+08	1.18E-05	5.10E+02	47.00
QT700-2	1.69E+11	0.305	7.09E+03	6.47E+10	7.00E+08	4.20E+08	1.08E-05	5.10E+02	47.00
QT800-2	1.74E+11	0.270	7.30E+03	6.84E+10	8.00E+08	4.80E+08	1.01E-05	5.10E+02	47.00
QT900-2	1.81E+11	0.270	7.18E+03	7.10E+10	9.00E+08	6.00E+08	1.10E-05	5.10E+02	47.00
Q195	2.12E+11	0.286	7.69E+03	8.24E+10	3.50E+08	1.95E+08	8.80E-06	4.40E+02	43.00
Q215	2.12E+11	0.288	7.69E+03	8.25E+10	3.50E+08	2.15E+08	8.80E-06	4.40E+02	43.00
Q235-A(F)	2.08E+11	0.277	7.86E+03	8.14E+10	3.90E+08	2.35E+08	8.70E-06	4.40E+02	43.00
Q235-A	2.12E+11	0.288	7.86E+03	8.23E+10	3.90E+08	2.35E+08	1.20E-05	4.40E+02	43.00
Q235-B	2.10E+11	0.274	7.83E+03	8.24E+10	3.90E+08	2.35E+08	8.00E-06	4.40E+02	43.00
Q255	2.10E+11	0.274	7.83E+03	8.24E+10	4.50E+08	2.55E+08	8.00E-06	4.40E+02	43.00
Q275	2.10E+11	0.274	7.83E+03	8.24E+10	4.90E+08	2.50E+08	8.00E-06	4.40E+02	43.00
08F	2.19E+11	0.267	7.83E+03	8.62E+10	2.95E+08	1.75E+08	8.70E-06	4.40E+02	48.00
8	2.11E+11	0.279	7.82E+03	8.25E+10	2.95E+08	1.75E+08	1.22E-05	4.40E+02	48.00
10F	2.12E+11	0.270	7.85E+03	8.26E+10	3.15E+08	1.85E+08	1.25E-05	4.40E+02	48.00
10	2.10E+11	0.270	7.86E+03	8.26E+10	3.15E+08	1.85E+08	1.26E-05	4.40E+02	48.00
15F	2.12E+11	0.288	7.85E+03	8.24E+10	3.55E+08	2.05E+08	1.19E-05	4.40E+02	48.00
15	2.13E+11	0.289	7.85E+03	8.26E+10	3.75E+08	2.25E+08	1.19E-05	4.40E+02	48.00
20	2.13E+11	0.282	7.80E+03	8.31E+10	4.10E+08	2.45E+08	1.19E-05	4.40E+02	48.00
20G	2.11E+11	0.286	7.80E+03	8.23E+10	4.25E+08	2.45E+08	1.24E-05	4.40E+02	48.00
20g	2.11E+11	0.286	7.80E+03	8.23E+10	4.00E+08	2.45E+08	1.24E-05	4.40E+02	48.00
25	2.06E+11	0.281	7.85E+03	8.04E+10	4.50E+08	2.75E+08	1.10E-05	4.40E+02	48.00
30	2.17E+11	0.317	7.86E+03	8.20E+10	4.90E+08	2.95E+08	1.08E-05	4.40E+02	48.00
35	2.12E+11	0.291	7.87E+03	8.21E+10	5.30E+08	3.15E+08	1.25E-05	4.40E+02	48.00
40	2.09E+11	0.270	7.81E+03	8.23E+10	5.70E+08	3.35E+08	9.00E-06	4.40E+02	48.00
45	2.09E+11	0.269	7.89E+03	8.23E+10	6.00E+08	3.55E+08	1.17E-05	4.50E+02	48.00
50	2.07E+11	0.276	7.86E+03	8.11E+10	6.30E+08	3.75E+08	1.21E-05	4.50E+02	48.00
55	2.17E+11	0.270	7.83E+03	8.53E+10	6.45E+08	3.80E+08	9.90E-06	4.50E+02	48.00
60	2.12E+11	0.264	8.50E+03	8.40E+10	6.75E+08	4.00E+08	9.60E-06	4.50E+02	48.00
70	2.06E+11	0.304	7.81E+03	7.90E+10	7.15E+08	4.20E+08	1.15E-05	4.50E+02	48.00
80	2.16E+11	0.310	7.85E+03	7.95E+10	1.08E+09	9.30E+08	1.18E-05	4.50E+02	48.00
15Mn	2.10E+11	0.280	8.00E+03	8.00E+10	4.10E+08	2.45E+08	1.30E-05	4.50E+02	48.00
16Mn	2.12E+11	0.310	7.87E+03	8.07E+10	4.20E+08	2.50E+08	1.28E-05	4.50E+02	48.00
25Mn	2.10E+11	0.280	8.00E+03	8.00E+10	4.90E+08	2.95E+08	1.30E-05	4.50E+02	48.00
35Mn	2.10E+11	0.280	8.00E+03	8.00E+10	5.60E+08	3.35E+08	1.30E-05	4.50E+02	48.00
45Mn	2.10E+11	0.280	8.00E+03	8.00E+10	6.20E+08	3.75E+08	1.30E-05	4.50E+02	48.00
60Mn	2.10E+11	0.288	7.82E+03	8.19E+10	6.95E+08	4.10E+08	1.21E-05	4.50E+02	48.00
65Mn	2.11E+11	0.288	7.82E+03	8.19E+10	7.35E+08	4.30E+08	1.20E-05	4.50E+02	48.00
70Mn	2.15E+11	0.290	7.84E+03	8.20E+10	7.85E+08	4.50E+08	1.19E-05	4.50E+02	48.00
T2	1.37E+11	0.310	8.98E+03	5.20E+10	7.15E+08	4.20E+08	1.73E-05	4.50E+02	48.00
T3	1.08E+11	0.350	8.91E+03	4.41E+10	7.15E+08	4.20E+08	1.69E-05	4.50E+02	48.00
T7	2.10E+11	0.275	7.90E+03	8.00E+10	7.15E+08	4.20E+08	1.30E-05	4.50E+02	48.00
T8	2.23E+11	0.277	7.84E+03	8.72E+10	1.08E+09	9.30E+08	1.06E-05	4.50E+02	48.00
T8Mn	2.10E+11	0.275	7.90E+03	8.00E+10	1.08E+09	9.30E+08	1.30E-05	4.50E+02	48.00
T9	2.10E+11	0.275	7.90E+03	8.00E+10	1.13E+09	9.80E+08	1.30E-05	4.50E+02	48.00
T10	2.10E+11	0.275	7.90E+03	8.00E+10	1.15E+09	9.90E+08	1.30E-05	4.50E+02	48.00
ZG230-450 (GB)	2.11E+11	0.311	7.83E+03	8.04E+10	4.83E+08	2.48E+08	9.60E-06	5.00E+02	30.00
ZG20SiMn (GB)	2.11E+11	0.290	7.86E+03	8.21E+10	4.83E+08	2.48E+08	1.27E-05	5.00E+02	30.00
ZG40Cr (GB)	2.15E+11	0.270	7.72E+03	8.42E+10	4.83E+08	2.48E+08	1.23E-05	5.00E+02	30.00
Q295	2.06E+11	0.280	7.85E+03	7.90E+10	3.90E+08	2.95E+08	1.30E-05	4.60E+02	44.00
Q345	2.06E+11	0.280	7.85E+03	7.90E+10	4.70E+08	3.45E+08	1.30E-05	4.60E+02	44.00
Q390	2.06E+11	0.280	7.85E+03	7.90E+10	4.90E+08	3.90E+08	1.30E-05	4.60E+02	44.00
Q420	2.06E+11	0.280	7.85E+03	7.90E+10	5.20E+08	4.20E+08	1.30E-05	4.60E+02	44.00
Q460	2.06E+11	0.280	7.85E+03	7.90E+10	5.50E+08	4.60E+08	1.30E-05	4.60E+02	44.00
4140	2.00E+11	0.290	7.83E+03	7.60E+10	7.95E+08	6.10E+08	1.18E-05	4.60E+02	44.00
20Cr	2.07E+11	0.254	7.83E+03	8.25E+10	8.35E+08	5.40E+08	1.13E-05	4.60E+02	44.00
30Cr	2.06E+11	0.290	7.82E+03	7.90E+10	8.85E+08	6.85E+08	1.30E-05	4.60E+02	44.00
40Cr	2.11E+11	0.277	7.87E+03	8.28E+10	9.80E+08	7.85E+08	1.20E-05	4.60E+02	44.00
45Cr	2.06E+11	0.290	7.82E+03	7.90E+10	1.03E+09	8.35E+08	1.30E-05	4.60E+02	44.00
50Cr	2.06E+11	0.290	7.82E+03	7.90E+10	1.08E+09	9.30E+08	1.30E-05	4.60E+02	44.00
15CrMo	2.12E+11	0.284	7.88E+03	8.25E+10	4.40E+08	2.95E+08	1.34E-05	4.60E+02	44.00
20CrMo	2.10E+11	0.278	7.84E+03	8.22E+10	8.85E+08	6.85E+08	1.27E-05	4.60E+02	44.00
20CrMoH	2.10E+11	0.278	7.84E+03	8.22E+10	1.26E+09	1.08E+09	1.27E-05	4.60E+02	44.00
25Cr2MoV	2.11E+11	0.300	7.62E+03	8.10E+10	1.09E+09	1.04E+09	1.18E-05	4.60E+02	44.00
25Cr2MoVA	2.11E+11	0.300	7.62E+03	8.10E+10	9.30E+08	7.85E+08	1.18E-05	4.60E+02	44.00
25Cr3Mo3VNb#	2.20E+11	0.280	7.81E+03	8.55E+10	8.85E+08	6.85E+08	1.01E-05	4.60E+02	44.00
30CrMo	2.11E+11	0.279	7.85E+03	8.22E+10	9.30E+09	7.85E+08	1.27E-05	4.60E+02	44.00
35CrMo	2.13E+11	0.286	7.87E+03	8.24E+10	9.80E+08	8.35E+08	1.25E-05	4.60E+02	44.00
42CrMo	2.12E+11	0.280	7.85E+03	8.25E+10	1.08E+09	9.30E+08	1.24E-05	4.60E+02	44.00
7Cr7Mo3V2Si#	2.25E+11	0.360	7.72E+03	8.22E+10	1.08E+09	9.30E+08	1.11E-05	4.60E+02	44.00
9Cr2Mo#	2.36E+11	0.300	7.81E+03	9.07E+10	1.08E+09	9.30E+08	1.15E-05	4.60E+02	44.00
Cr12MoV	2.18E+11	0.280	7.85E+03	8.53E+10	9.20E+08	7.50E+08	1.04E-05	4.60E+02	44.00
Cr4Mo4V#	2.18E+11	0.290	7.87E+03	8.41E+10	1.08E+09	9.30E+08	1.09E-05	4.60E+02	44.00
CrWMn	2.20E+11	0.290	7.93E+03	8.56E+10	9.25E+08	7.50E+08	1.17E-05	4.60E+02	44.00
20CrMnMo	2.07E+11	0.254	7.87E+03	8.25E+10	1.18E+09	8			

40CrMnMo	2.07E+11	0.254	7.87E+03	8.25E+10	9.80E+09	7.85E+08	1.12E-05	4.60E+02	44.00
20CrMnTi	2.12E+11	0.289	7.86E+03	8.17E+10	1.08E+09	8.35E+08	1.27E-05	4.60E+02	44.00
30CrMnTi	2.05E+11	0.250	7.85E+03	8.20E+10	1.47E+09	1.21E+08	1.07E-05	4.60E+02	44.00
20CrMnSi	2.10E+11	0.276	7.80E+03	8.23E+10	7.85E+08	6.35E+08	1.29E-05	4.60E+02	44.00
40CrMnSiMoV	1.93E+11	0.260	7.78E+03	8.10E+10	1.99E+09	1.95E+09	1.25E-05	4.60E+02	44.00
5Cr21Mn9Ni2N	2.05E+11	0.265	7.73E+03	8.10E+10	1.09E+09	5.98E+08	1.68E-05	4.60E+02	44.00
5Cr21Mn9Ni12N	1.98E+11	0.270	7.73E+03	7.76E+10	8.70E+08	4.64E+08	1.85E-05	4.60E+02	44.00
20CrNiMo	2.08E+11	0.295	7.87E+03	8.09E+10	9.80E+08	7.85E+08	1.28E-05	4.60E+02	44.00
20CrNi2MoA	2.10E+11	0.275	7.87E+03	8.50E+10	1.15E+09	8.35E+08	1.07E-05	4.60E+02	44.00
2Cr12NiMoWV	2.16E+11	0.270	7.84E+03	8.44E+10	8.85E+08	7.35E+08	1.04E-05	4.60E+02	44.00
28CrNiMoV#	2.14E+11	0.280	7.87E+03	8.29E+10	1.15E+09	8.35E+08	1.20E-05	4.60E+02	44.00
30Cr2Ni4MoV#	2.04E+11	0.286	7.86E+03	7.94E+10	1.15E+09	8.35E+08	1.17E-05	4.60E+02	44.00
40CrNiMo	2.09E+11	0.295	7.87E+03	8.07E+10	9.80E+08	8.00E+08	1.28E-05	4.60E+02	44.00
40CrNiMoA	2.09E+11	0.295	7.87E+03	8.07E+10	9.80E+08	8.35E+08	1.28E-05	4.60E+02	44.00
45CrNiMoV	2.14E+11	0.290	7.83E+03	8.28E+10	1.55E+09	1.37E+09	1.21E-05	4.60E+02	44.00
45CrNiMoVA	2.14E+11	0.290	7.83E+03	8.28E+10	1.47E+09	1.33E+09	1.21E-05	4.60E+02	44.00
10Cr2Mo1#	2.01E+11	0.291	7.83E+03	7.98E+10	1.25E+09	1.05E+09	1.11E-05	0.00E+00	0.00
10Cr9Mo1VNb#	2.20E+11	0.290	7.78E+03	8.50E+10	1.25E+09	1.05E+09	1.17E-05	0.00E+00	0.00
10CrMo910#	2.16E+11	0.283	7.87E+03	8.42E+10	1.25E+09	1.05E+09	1.22E-05	0.00E+00	0.00
12Cr1MoV	2.14E+11	0.286	7.86E+03	8.35E+10	4.50E+08	2.55E+08	1.30E-05	0.00E+00	0.00
12Cr1MoVTiB#	2.10E+11	0.270	7.83E+03	8.20E+10	1.25E+09	1.05E+09	1.27E-05	0.00E+00	0.00
12Cr3MoVSiTiB#	2.18E+11	0.270	7.78E+03	8.61E+10	1.25E+09	1.05E+09	1.22E-05	0.00E+00	0.00
12CrNi3	2.12E+11	0.310	7.84E+03	8.09E+10	9.30E+08	6.85E+08	1.19E-05	0.00E+00	0.00
12Cr2Ni4	2.07E+11	0.298	7.84E+03	7.97E+10	1.08E+09	8.35E+08	1.29E-05	0.00E+00	0.00
12Cr2Ni4H	2.07E+11	0.298	7.84E+03	7.97E+10	1.08E+09	8.35E+08	1.29E-05	0.00E+00	0.00
12Cr2Ni4HA	2.07E+11	0.298	7.84E+03	7.97E+10	1.08E+09	8.35E+08	1.29E-05	0.00E+00	0.00
12Cr18Ni9#	1.84E+11	0.243	7.92E+03	7.40E+10	1.25E+09	1.05E+09	1.55E-05	0.00E+00	0.00
12Cr11MoV#	2.17E+11	0.270	7.81E+03	8.51E+10	1.25E+09	1.05E+09	1.07E-05	0.00E+00	0.00
12Cr12Mo#	2.19E+11	0.310	7.75E+03	7.90E+10	1.25E+09	1.05E+09	1.04E-05	0.00E+00	0.00
1Cr13	2.16E+11	0.280	7.77E+03	8.41E+10	5.40E+08	3.45E+08	1.13E-05	0.00E+00	0.00
1Cr18Ni9	1.84E+11	0.243	7.92E+03	7.40E+10	5.20E+08	2.50E+08	1.55E-05	0.00E+00	0.00
18Cr2Ni4W	2.02E+11	0.270	7.91E+03	7.94E+10	1.04E+09	9.52E+08	1.24E-05	0.00E+00	0.00
18Cr2Ni4WA	2.02E+11	0.270	7.91E+03	7.94E+10	1.18E+09	8.35E+08	1.24E-05	0.00E+00	0.00
20CrMoVNBtiB#	2.13E+11	0.270	7.88E+03	8.40E+10	1.25E+09	1.05E+09	1.23E-05	0.00E+00	0.00
20CrMo1VTiB#	2.13E+11	0.279	7.88E+03	8.38E+10	1.25E+09	1.05E+09	1.26E-05	0.00E+00	0.00
4Cr3Mo2MnSiVNB#	2.18E+11	0.290	7.82E+03	8.41E+10	1.25E+09	1.05E+09	1.03E-05	0.00E+00	0.00
4Cr5Mo2MnVSi#	2.21E+11	0.290	7.77E+03	8.63E+10	1.25E+09	1.05E+09	1.00E-05	0.00E+00	0.00
20CrNi4A#	2.07E+11	0.290	7.88E+03	8.04E+10	1.25E+09	1.05E+09	1.21E-05	0.00E+00	0.00
3Cr2W8V	2.26E+11	0.310	8.35E+03	8.60E+10	9.20E+08	7.50E+08	1.21E-05	0.00E+00	0.00
16MnCr5	2.11E+11	0.280	7.89E+03	8.26E+10	1.31E+09	1.19E+09	1.26E-05	4.60E+02	44.00
16Mn#	2.08E+11	0.260	7.85E+03	8.20E+10	7.85E+08	4.50E+08	1.37E-05	4.50E+02	48.00
16MnI#	2.12E+11	0.310	7.87E+03	8.07E+10	7.85E+08	4.50E+08	1.28E-05	4.50E+02	48.00
16MnR#	2.09E+11	0.280	7.85E+03	8.20E+10	7.85E+08	4.50E+08	1.26E-05	4.50E+02	48.00
19Mn5	2.02E+11	0.270	7.91E+03	7.94E+10	5.59E+08	3.82E+08	1.24E-05	4.50E+02	48.00
35Mn2	2.06E+11	0.300	7.65E+03	7.93E+10	8.35E+08	6.85E+08	1.22E-05	4.50E+02	48.00
40MnB	2.09E+11	0.280	7.87E+03	8.14E+10	9.80E+08	7.85E+08	1.22E-05	4.50E+02	48.00
40MnBH	2.09E+11	0.280	7.87E+03	8.14E+10	9.80E+08	7.85E+08	1.22E-05	4.50E+02	48.00
40MnBHA	2.09E+11	0.280	7.87E+03	8.14E+10	9.80E+08	7.85E+08	1.22E-05	4.50E+02	48.00
45Mn2	2.04E+11	0.230	7.80E+03	8.28E+10	8.85E+08	7.35E+08	1.13E-05	4.50E+02	48.00
20MnCr5	2.09E+11	0.280	7.81E+03	8.21E+10	1.48E+09	1.23E+09	1.31E-05	4.50E+02	48.00
25MnCr5#	2.10E+11	0.280	7.83E+03	8.20E+10	1.59E+09	1.21E+09	1.24E-05	4.50E+02	48.00
28MnCr5	2.12E+11	0.280	7.85E+03	8.28E+10	1.31E+09	9.82E+08	1.20E-05	4.50E+02	48.00
20MnMoB	2.12E+11	0.270	7.90E+03	8.31E+10	1.08E+09	8.85E+08	1.25E-05	4.50E+02	48.00
20MnMoBH	2.12E+11	0.270	7.90E+03	8.31E+10	1.08E+09	8.85E+08	1.25E-05	4.50E+02	48.00
20MnMoBHA	2.12E+11	0.270	7.90E+03	8.31E+10	1.08E+09	8.85E+08	1.25E-05	4.50E+02	48.00
20MnTiBRE#	2.05E+11	0.250	7.85E+03	8.20E+10	7.85E+08	4.50E+08	1.05E-05	4.50E+02	48.00
20MnVB	2.07E+11	0.256	7.87E+03	8.26E+10	1.08E+09	8.85E+08	1.12E-05	4.50E+02	48.00
20MnVBH	2.07E+11	0.256	7.87E+03	8.26E+10	1.08E+09	8.85E+08	1.12E-05	4.50E+02	48.00
20MnVBHA	2.07E+11	0.256	7.87E+03	8.26E+10	1.08E+09	8.85E+08	1.12E-05	4.50E+02	48.00
20Ni2Mo	2.06E+11	0.300	7.62E+03	7.93E+10	6.51E+08	4.85E+08	1.15E-05	4.50E+02	48.00
19CN5	2.13E+11	0.290	7.85E+03	8.20E+10	1.45E+09	1.00E+09	1.29E-05	4.50E+02	48.00
13MnNiMoNB#	2.10E+11	0.280	7.83E+03	8.19E+10	1.25E+09	1.05E+09	1.15E-05	0.00E+00	0.00
14MnMoVBRE	2.06E+11	0.250	7.87E+03	8.21E+10	7.62E+08	5.22E+08	1.26E-05	0.00E+00	0.00
15MnV	2.13E+11	0.283	7.84E+03	8.30E+10	8.85E+08	6.35E+08	1.27E-05	4.60E+02	44.00
ML15MnV	2.13E+11	0.283	7.84E+03	8.30E+10	1.08E+09	8.83E+08	1.27E-05	4.60E+02	44.00
53CaS	2.11E+11	0.270	7.83E+03	8.30E+10	7.91E+08	5.85E+08	1.64E-05	4.60E+02	44.00
55Si2Mn	2.07E+11	0.270	7.73E+03	8.13E+10	1.27E+09	1.18E+09	1.18E-05	4.60E+02	44.00
55Si2MnB	2.07E+11	0.270	7.73E+03	8.13E+10	1.27E+09	1.18E+09	1.18E-05	4.60E+02	44.00
55SiMnVB	2.09E+11	0.280	7.86E+03	8.17E+10	1.37E+09	1.23E+09	1.18E-05	4.60E+02	44.00
55Ti#	2.10E+11	0.285	7.73E+03	8.17E+10	8.85E+08	6.85E+08	1.22E-05	4.60E+02	44.00
60Si2Mn	2.06E+11	0.290	7.74E+03	7.99E+10	1.27E+09	1.18E+09	1.26E-05	4.60E+02	44.00
60Si2MnA	2.06E+11	0.290	7.74E+03	7.99E+10	1.57E+09	1.37E+09	1.26E-05	4.60E+02	44.00
BHW35#	2.09E+11	0.290	7.84E+03	8.09E+10	8.85E+08	6.85E+08	1.26E-05	4.60E+02	44.00
K409#	1.96E+11	0.220	8.18E+03	8.10E+10	8.85E+08	6.85E+08	1.22E-05	4.60E+02	44.00
K438#	2.07E+11	0.270	8.16E+03	8.20E+10	8.85E+08	6.85E+08	9.80E-06	4.60E+02	44.00
GCr15	2.19E+11	0.300	7.83E+03	8.47E+10	1.62E+09	0.00E+00	1.20E-05	4.60E+02	44.00
GCr15A	2.19E+11	0.300	7.83E+03	8.47E+10	1.90E+09	0.00E+00	1.20E-05	4.60E+02	44.00
GCr15SiMn	2.16E+11	0.300	7.82E+03	8.32E+10	1.83E+09	0.00E+00	1.20E-05	4.60E+02	44.00
GCr15SiMnA	2.16E+11	0.300	7.82E+03	8.32E+10	1.91E+09	0.00E+00	1.20E-05	4.60E+02	44.00
Ni-Cr-Co-Fe#	2.21E+11	0.290	8.19E+03	8.30E+10	8.85E+08	6.85E+08	1.09E-05	4.60E+02	44.00
X20CrNiMoV121#	2.21E+11	0.270	7.70E+03	8.73E+10	8.85E+08	6.85E+08	1.14E-05	4.60E+02	44.00
YF45MnV	2.12E+11	0.280	7.84E+03	8.26E+10	8.86E+08	5.87E+08	1.02E-05	4.60E+02	44.00
ZG15Cr1Mo#	2.07E+11	0.290	7.83E+03	7.93E+10	8.85E+08	6.85E+08	1.40E-05	4.60E+02	44.00
ZG15Cr1Mo1V#	2.15E+11	0.281	7.81E+03	8.39E+10	8.85E+08	6.85E+08	1.26E-05	4.60E+02	44.00
ZG15Cr2Mo#	2.13E+11	0.279	7.88E+03	8.33E+10	8.85E+08	6.85E+08	1.32E-05	4.60E+02	44.00
ZG1Cr13#	2.19E+11	0.281	7.72E+03	8.55E+10	8.85E+08	6.85E+08	1.02E-05	4.60E+02	44.00
G20CrNi2Mo	2.05E+11	0.290	7.88E+03	7.93E+10	9.80E+08	0.00E+00	1.22E-05	4.60E+02	44.00
G20CrNi2MoA	2.05E+11	0.290	7.88E+03	7.93E+10	9.80E+08	0.00E+00	1.22E-05	4.60E+02	44.00
G20CrNi4A#	1.98E+11	0.270	7.88E+03	7.77E+10	8.85E+08	0.00E+00	1.24E-05	4.60E+02	44.00
G20CrNiMo	2.13E+11	0.292	7.80E+03	8.24E+10	1.18E+09	0.00E+00	1.21E-05	4.60E+02	44.00
G20CrNiMoA	2.13E+11	0.292	7.80E+03	8.24E+10	1.18E+09	0.00E+00	1.21E-05	4.60E+02	44.00
00Cr17Ni14Mo2 (GB)	2.06E+11	0.280	8.00E+03	8.03E+10	5.00E+08	2.50E+08	1.67E-05	5.00E+02	16.00
0Cr13Al	2.00E+11	0.280	7.80E+03	7.70E+10	4.10E+08	1.77E+08	1.10E-05	4.60E+02	18.00
0Cr18Ni9 (GB)	2.04E+11	0.285	7.93E+03	7.94E+10	5.20E+08	2.05E+08	1.67E-05	5.00E+02	16.00
0Cr17Ni4Cu4Nb (GB)	2.13E+11	0.270	7.78E+03	7.73E+10	1.00E+09	8.65E+08	1.11E-05	5.00E+02	16.00
0Cr18Ni12Mo2Ti (GB)	1.93E+11	0.270	8.00E+03	0.00E+00	5.30E+08	2.05E+08	1.60E-05	5.00E+02	16.30
0Cr18Ni9Cu3 (GB)	1.93E+11	0.270	8.00E+03	0.00E+00	4.80E+08	1.77E+08	1.70E-05	5.00E+02	

ZG0Cr13Ni6Mo#	2.03E+11	0.291	7.73E+03	7.86E+10	5.88E+08	3.92E+08	1.08E-05	5.20E+02	37.00
Bronze	1.10E+11	0.300	7.40E+03	4.30E+10	5.51E+08	2.76E+08	1.70E-05	3.80E+02	56.00
QBe1.7	1.15E+11	0.300	8.26E+03	5.00E+10	4.83E+08	2.21E+08	1.67E-05	0.00E+00	118.00
QBe2	1.25E+11	0.300	8.25E+03	5.00E+10	4.69E+08	1.72E+08	1.67E-05	0.00E+00	105.00
H90	1.00E+11	0.330	8.50E+03	3.70E+10	4.48E+08	2.40E+08	1.80E-05	3.90E+02	110.00
HPb63-3	1.05E+11	0.000	8.50E+03	3.90E+10	3.38E+08	1.17E+08	2.03E-05	0.00E+00	115.00
QCr0.5-0.2-0.1	1.30E+11	0.000	8.89E+03	5.00E+10	2.34E+08	9.70E+07	1.76E-05	0.00E+00	171.00
QCd-1	1.10E+11	0.370	8.90E+03	4.00E+10	3.94E+08	2.59E+08	2.40E-05	3.90E+02	390.00
QMn5	1.10E+11	0.370	8.30E+03	3.90E+10	4.48E+08	2.07E+08	2.20E-05	3.80E+02	9.60
QSn4-3	1.10E+12	0.330	8.80E+03	3.70E+10	2.62E+08	1.10E+08	1.80E-05	3.80E+02	47.00
QSn6.5-0.4	1.10E+11	0.000	8.78E+03	4.10E+10	4.55E+08	1.93E+08	1.84E-05	0.00E+00	50.00
ZChPbSB16-16-2#	3.62E+10	0.320	9.28E+03	1.37E+10	2.62E+08	1.10E+08	2.33E-05	3.80E+02	47.00
ZChSnSb11-6#	5.88E+10	0.360	7.17E+03	1.37E+10	2.62E+08	1.10E+08	2.26E-05	3.80E+02	47.00
ZChSnSb8-4#	5.59E+10	0.360	7.16E+03	1.37E+10	2.62E+08	1.10E+08	2.23E-05	3.80E+02	47.00
ZCuAL10Fe3#	1.19E+11	0.330	7.75E+03	4.49E+10	2.62E+08	1.10E+08	1.70E-05	3.80E+02	47.00
ZCuAL10Fe3Mn2#	1.08E+11	0.300	7.55E+03	4.10E+10	2.62E+08	1.10E+08	1.69E-05	3.80E+02	47.00
ZCuPb30	8.20E+10	0.320	9.62E+03	3.10E+10	9.50E+08	0.00E+00	1.95E-05	3.80E+02	47.00
ZCuSn5Pb5Zn5	8.53E+10	0.320	8.41E+03	3.24E+10	2.50E+08	1.10E+08	1.78E-05	3.80E+02	47.00
AL-1#	6.96E+10	0.310	2.70E+03	2.70E+09	8.85E+08	6.85E+08	2.36E-05	4.60E+02	44.00
LC4#	7.50E+10	0.350	2.82E+03	2.76E+09	8.85E+08	6.85E+08	2.43E-05	4.60E+02	44.00
LD5#	7.55E+10	0.400	2.77E+03	2.69E+09	8.85E+08	6.85E+08	2.36E-05	4.60E+02	44.00
LD9#	7.40E+10	0.340	2.80E+03	2.80E+10	4.21E+08	3.17E+08	2.20E-05	1.00E+03	150.00
LD10#	7.48E+10	0.350	2.82E+03	2.84E+09	8.85E+08	6.85E+08	2.27E-05	4.60E+02	44.00
LY12#	7.42E+10	0.360	2.85E+03	2.73E+09	8.85E+08	6.85E+08	2.38E-05	4.60E+02	44.00
ZALSi12#	7.75E+10	0.330	2.57E+03	2.84E+09	8.85E+08	6.85E+08	2.33E-05	4.60E+02	44.00
ZALSi9Mg#	7.25E+10	0.320	2.50E+03	2.74E+09	8.85E+08	6.85E+08	2.12E-05	4.60E+02	44.00
1050 (GB)	6.90E+10	0.330	2.70E+03	2.70E+10	6.89E+07	2.76E+07	2.40E-05	9.00E+02	200.00
1050-O (GB)	6.90E+10	0.330	2.71E+03	2.60E+10	6.00E+07	3.00E+07	2.40E-05	9.00E+02	234.00
1050-H12 (GB)	6.90E+10	0.330	2.71E+03	2.60E+10	8.00E+07	7.00E+07	2.36E-05	9.00E+02	230.00
1050-H12 Rod (GB)	6.90E+10	0.330	2.71E+03	2.60E+10	8.00E+07	5.70E+07	2.40E-05	9.00E+02	230.00
1050-H14 (GB)	6.90E+10	0.330	2.71E+03	2.60E+10	9.50E+07	8.00E+07	2.36E-05	9.00E+02	230.00
1050-H16 (GB)	6.90E+10	0.330	2.71E+03	2.60E+10	1.20E+09	1.05E+08	2.36E-05	9.00E+02	230.00
1050-H18 (GB)	6.90E+10	0.330	2.71E+03	2.60E+10	1.25E+08	1.00E+08	2.36E-05	9.00E+02	230.00
1050-H18 Rod (GB)	6.90E+10	0.330	2.71E+03	2.60E+10	1.25E+08	1.08E+08	2.40E-05	9.00E+02	230.00
1200-O Rod (GB)	6.89E+10	0.330	2.71E+03	2.60E+10	8.96E+07	3.45E+07	2.40E-05	9.04E+02	222.00
1200-H12 Rod (GB)	6.89E+10	0.330	2.71E+03	2.60E+10	1.10E+08	9.93E+07	2.40E-05	9.04E+02	220.00
1200-H16 Rod (GB)	6.89E+10	0.330	2.71E+03	2.60E+10	1.30E+08	1.23E+08	2.40E-05	9.04E+02	220.00
1200-H26 Rod (GB)	6.90E+10	0.330	2.70E+03	2.60E+10	1.30E+08	1.19E+08	0.00E+00	9.00E+02	230.00
1145 (GB)	6.90E+10	0.330	2.70E+03	2.70E+10	8.27E+07	2.76E+07	2.40E-05	1.00E+03	230.00
2014 Alloy (GB)	7.30E+10	0.330	2.80E+03	2.80E+10	1.65E+08	9.65E+07	2.30E-05	9.60E+02	160.00
2014-O (GB)	7.24E+10	0.330	2.80E+03	2.80E+10	2.05E+08	9.50E+07	2.30E-05	8.80E+02	192.00
2014-T4 (GB)	7.24E+10	0.330	2.80E+03	2.80E+10	4.25E+08	2.90E+08	2.30E-05	8.80E+02	134.00
2014-T6 (GB)	7.24E+10	0.330	2.80E+03	2.80E+10	4.40E+08	3.95E+08	2.30E-05	8.80E+02	155.00
2014-H112 (GB)	7.24E+10	0.330	2.80E+03	2.80E+10	4.40E+08	3.95E+08	2.30E-05	8.80E+02	155.00
2014-T62 (GB)	7.24E+10	0.330	2.80E+03	2.80E+10	4.60E+08	4.05E+08	2.30E-05	8.80E+02	155.00
2A90 (GB)	7.40E+10	0.330	2.80E+03	2.70E+10	4.21E+08	3.17E+08	2.20E-05	1.00E+03	150.00
2024 (GB)	7.30E+10	0.330	2.80E+03	2.80E+10	1.86E+08	7.58E+08	2.30E-05	8.00E+02	140.00
2024-O (GB)	7.24E+10	0.330	2.78E+03	2.80E+10	1.85E+08	7.50E+07	2.32E-05	8.75E+02	193.00
2024-T3 (GB)	7.24E+10	0.330	2.78E+03	2.80E+10	4.05E+08	2.75E+08	2.32E-05	8.75E+02	120.00
2024-T4 (GB)	7.24E+10	0.330	2.78E+03	2.80E+10	4.00E+08	2.60E+08	2.32E-05	8.75E+02	120.00
2219-O (GB)	7.20E+10	0.330	2.84E+03	2.70E+10	1.70E+08	7.00E+07	2.23E-05	8.64E+02	170.00
2219-T31 (GB)	7.20E+10	0.330	2.84E+03	2.70E+10	3.60E+08	2.50E+08	2.23E-05	8.64E+02	116.00
2219-T37 (GB)	7.20E+10	0.330	2.84E+03	2.70E+10	3.95E+08	3.15E+08	2.23E-05	8.64E+02	116.00
2219-T62 (GB)	7.20E+10	0.330	2.84E+03	2.70E+10	4.15E+08	2.90E+08	2.23E-05	8.64E+02	120.00
2219-T81 (GB)	7.20E+10	0.330	2.84E+03	2.70E+10	4.55E+08	3.50E+08	2.23E-05	8.64E+02	120.00
2219-T87 (GB)	7.20E+10	0.330	2.84E+03	2.70E+10	4.75E+08	3.95E+08	2.23E-05	8.64E+02	120.00
2618-T61 (GB)	7.45E+10	0.330	2.76E+03	2.70E+10	4.41E+08	3.72E+08	2.20E-05	8.75E+02	146.00
3003 Alloy (GB)	6.90E+10	0.330	2.70E+03	2.70E+10	1.10E+08	4.14E+07	2.30E-05	1.00E+03	170.00
3003-O (GB)	6.90E+10	0.330	2.73E+03	2.50E+10	1.10E+08	4.00E+07	2.32E-05	8.93E+02	193.00
3003-O, Rod (GB)	6.90E+10	0.330	2.73E+03	2.50E+10	1.05E+08	3.60E+07	2.30E-05	8.93E+02	193.00
3003-H12 (GB)	6.90E+10	0.330	2.73E+03	2.50E+10	1.30E+08	1.25E+08	2.32E-05	8.93E+02	162.00
3003-H12, Rod (GB)	6.90E+10	0.330	2.73E+03	2.50E+10	1.30E+08	1.25E+08	2.30E-05	8.93E+02	162.00
3003-H14 (GB)	6.90E+10	0.330	2.73E+03	2.50E+10	1.50E+08	1.45E+08	2.32E-05	8.93E+02	159.00
3003-H14, Rod (GB)	6.90E+10	0.330	2.73E+03	2.50E+10	1.50E+08	1.45E+08	2.30E-05	8.93E+02	159.00
3003-H16 (GB)	6.90E+10	0.330	2.73E+03	2.50E+10	1.80E+08	1.70E+08	2.32E-05	8.93E+02	157.00
3003-H18 (GB)	6.90E+10	0.330	2.73E+03	2.50E+10	2.00E+08	1.85E+08	2.32E-05	8.93E+02	155.00
3003-H18, Rod (GB)	6.90E+10	0.330	2.73E+03	2.50E+10	2.00E+08	1.85E+08	2.30E-05	8.93E+02	155.00
3004-H34, Rod (GB)	6.89E+10	0.350	2.72E+03	2.50E+10	2.41E+08	2.00E+08	2.40E-05	8.93E+02	163.00
3004-O, Rod (GB)	6.89E+10	0.350	2.72E+03	2.50E+10	1.79E+08	6.90E+07	2.40E-05	8.93E+02	163.00
4032-T6 (GB)	7.90E+10	0.340	2.68E+03	2.60E+10	3.80E+08	3.15E+08	1.94E-05	8.50E+02	138.00
5A03-O (GB)	7.00E+10	0.330	2.68E+03	2.59E+10	1.95E+08	9.00E+07	2.38E-05	8.80E+02	137.00
5A03-O, Rod (GB)	7.00E+10	0.330	2.68E+03	2.59E+10	1.95E+08	7.24E+07	2.40E-05	8.80E+02	137.00
5A03-H32 (GB)	7.00E+10	0.330	2.68E+03	2.59E+10	2.30E+08	1.95E+08	2.38E-05	8.80E+02	137.00
5A03-H34 (GB)	7.00E+10	0.330	2.68E+03	2.59E+10	2.25E+09	2.15E+08	2.38E-05	8.80E+02	137.00
5A03-H36 (GB)	7.00E+10	0.330	2.68E+03	2.59E+10	2.75E+08	2.40E+08	2.38E-05	8.80E+02	127.00
5A03-H38 (GB)	7.00E+10	0.330	2.68E+03	2.59E+10	2.90E+08	2.55E+08	2.38E-05	8.80E+02	137.00
5A03-H38, Rod (GB)	7.00E+10	0.330	2.68E+03	2.59E+10	2.85E+08	2.46E+08	2.40E-05	8.80E+02	137.00
5154A-O, Rod (GB)	7.03E+10	0.330	2.66E+03	2.59E+10	2.41E+08	1.39E+08	2.40E-05	9.00E+02	125.00
5086-H32, Rod (GB)	7.10E+10	0.330	2.66E+03	2.64E+10	2.90E+08	6.89E+07	2.40E-05	9.00E+02	125.00
5554-O (GB)	7.00E+10	0.330	2.69E+03	2.60E+10	2.50E+08	1.15E+08	2.36E-05	9.00E+02	134.00
5554-H32 (GB)	7.00E+10	0.330	2.69E+03	2.60E+10	2.75E+08	2.05E+08	2.36E-05	9.00E+02	134.00
5554-H34 (GB)	7.00E+10	0.330	2.69E+03	2.60E+10	3.05E+08	2.40E+08	2.36E-05	9.00E+02	134.00
5554-H111 (GB)	7.00E+10	0.330	2.69E+03	2.60E+10	2.60E+08	1.80E+08	2.36E-05	9.00E+02	134.00
5554-H112 (GB)	7.00E+10	0.330	2.69E+03	2.60E+10	2.50E+08	1.25E+08	2.36E-05	9.00E+02	134.00
6061 Alloy (GB)	6.90E+10	0.330	2.70E+03	2.60E+10	1.24E+08	5.51E+07	2.40E-05	1.30E+03	170.00
6061-O (GB)	6.90E+10	0.330	2.70E+03	2.60E+10	1.25E+08	6.21E+07	2.40E-05	8.96E+02	180.00
6061-T4 (GB)	6.90E+10	0.330	2.70E+03	2.60E+10	2.40E+08	2.28E+08	2.40E-05	8.96E+02	154.00
6061-T6 (GB)	6.90E+10	0.330	2.70E+03	2.60E+10	3.10E+08	2.75E+08	2.40E-05	8.96E+02	166.90
6063-O (GB)	6.90E+10	0.330	2.70E+03	2.58E+10	9.00E+07	5.00E+07	2.34E-05	9.00E+02	218.00
6063-O, Extruded Rod (GB)	6.90E+10	0.330	2.70E+03	2.58E+10	9.00E+07	4.14E+07	2.30E-05	9.00E+02	218.00
6063-T1 (GB)	6.90E+10	0.330	2.70E+03	2.58E+10	1.50E+08	9.00E+07	2.34E-05	9.00E+02	193.00
6063-T4 (GB)	6.90E+10	0.330	2.70E+03	2.58E+10	1.70E+08	9.00E+07	2.34E-05	9.00E+02	200.00
6063-T5 (GB)	6.90E+10	0.330	2.70E+03	2.58E+10	1.85E+08	1.45E+08	2.34E-05	9.00E+02	209.00
6063-T6 (GB)	6.90E+10	0.330	2.70E+03	2.58E+10	2.40E+08	2.15E+08	2.34E-05	9.00E+02	209.00
6063-T6, Rod (GB)	6.90E+10	0.330	2.70E+03	2.58E+10	2.40E+08	2.15E+08	2.30E-05	9.00E+02	209.00
6063-T83 (GB)	6.90E+10								

1023 Carbon Steel Sheet #(SS)	2.05E+11	0.290	7.86E+03	8.00E+10	4.25E+08	2.83E+08	1.20E-05	4.86E+02	52.00
201 Annealed Stainless Steel (SS)	2.07E+11	0.270	7.86E+03	0.00E+00	6.85E+08	2.92E+08	1.70E-05	5.02E+02	16.30
AISI 1015 Steel, Cold Drawn (SS)	2.05E+11	0.290	7.87E+03	8.00E+10	3.85E+08	3.25E+08	1.20E-05	4.86E+02	52.00
AISI 1035 Steel (SS)	2.05E+11	0.290	7.85E+03	8.00E+10	5.85E+08	2.83E+08	1.10E-05	4.86E+02	52.00
AISI 1020	2.00E+11	0.290	7.90E+03	7.70E+10	4.21E+08	3.52E+08	1.50E-05	4.20E+02	47.00
AISI 1010 Steel, hot rolled bar	2.00E+11	0.290	7.87E+03	8.00E+10	3.25E+08	1.80E+08	1.22E-05	4.48E+02	51.90
AISI 1020 Steel, Cold Rolled	2.05E+11	0.290	7.87E+03	8.00E+10	4.20E+08	3.50E+08	1.17E-05	4.86E+02	51.90
AISI 1045 Steel, cold drawn	2.05E+11	0.290	7.85E+03	8.00E+10	6.25E+08	5.30E+08	1.15E-05	4.86E+02	49.80
AISI 304	1.90E+11	0.290	8.00E+03	7.50E+10	5.17E+08	2.07E+08	1.80E-05	5.00E+02	16.00
AISI 316 Annealed Stainless Steel Bar (S	1.93E+11	0.300	8.00E+03	0.00E+00	5.50E+08	1.38E+08	1.60E-05	5.00E+02	16.30
AISI 316 Stainless Steel Sheet (SS)	1.93E+11	0.270	8.00E+03	0.00E+00	5.80E+08	1.72E+08	1.60E-05	5.00E+02	16.30
AISI 321 Annealed Stainless Steel (SS)	1.93E+11	0.270	8.00E+03	0.00E+00	6.20E+08	2.34E+08	1.70E-05	5.00E+02	16.10
AISI 347 Annealed Stainless Steel (SS)	1.95E+11	0.270	8.00E+03	7.70E+10	6.55E+08	2.75E+08	1.70E-05	5.00E+02	16.30
AISI 4130 Steel, annealed at 865C	2.05E+11	0.000	7.85E+03	8.00E+10	5.60E+08	4.60E+08	0.00E+00	4.77E+02	42.70
AISI 4130 Steel, normalized at 870C	2.05E+11	0.000	7.85E+03	8.00E+10	7.31E+08	4.60E+08	0.00E+00	4.77E+02	42.70
AISI 4340 Steel, annealed	2.05E+11	0.000	7.85E+03	8.00E+10	7.45E+08	4.70E+08	1.23E-05	4.75E+02	44.50
AISI 4340 Steel, normalized	2.05E+11	0.000	7.85E+03	8.00E+10	1.11E+09	7.10E+08	1.23E-05	4.75E+02	44.50
AISI Type A2 Tool Steel	2.03E+11	0.000	7.86E+03	7.80E+10	0.00E+00	0.00E+00	1.10E-05	0.00E+00	0.00
AISI Type 316L stainless steel	2.00E+11	0.000	8.03E+03	8.20E+10	4.85E+08	1.70E+08	1.65E-05	4.50E+02	14.60
A286 Iron Base Superalloy	2.01E+11	0.000	7.92E+03	7.70E+10	6.20E+08	2.75E+08	1.65E-05	4.20E+02	15.10
ASTM A36 Steel	2.00E+11	0.260	7.85E+03	7.93E+10	4.00E+08	2.50E+08	0.00E+00	0.00E+00	0.00
Alloy Steel (SS)	2.10E+11	0.280	7.70E+03	7.90E+10	7.24E+08	6.20E+08	1.30E-05	4.60E+02	50.00
Cast Alloy Steel	1.90E+11	0.260	7.30E+03	7.80E+10	4.48E+08	2.41E+08	1.50E-05	4.40E+02	38.00
Cast Carbon Steel (SN)	2.00E+11	0.320	7.80E+03	7.60E+10	4.83E+08	2.48E+08	1.20E-05	5.00E+02	30.00
Cast Stainless Steel	1.90E+11	0.260	7.70E+03	7.90E+10	0.00E+00	0.00E+00	1.50E-05	5.20E+02	37.00
Chrome Stainless Steel	2.00E+11	0.280	7.80E+03	7.70E+10	4.14E+08	1.72E+08	1.10E-05	4.60E+02	18.00
Galvanized Steel	2.00E+11	0.000	7.87E+03	0.00E+00	3.57E+08	2.04E+08	0.00E+00	0.00E+00	0.00
Plain Carbon Steel	2.10E+11	0.280	7.80E+03	7.90E+10	4.00E+08	2.21E+08	1.30E-05	4.40E+02	43.00
Wrought Stainless Steel	2.00E+11	0.260	8.00E+03	7.90E+10	5.17E+08	2.07E+08	1.10E-05	5.00E+02	19.00
Stainless Steel (ferritic)	2.00E+11	0.280	7.80E+03	7.70E+10	5.14E+08	1.72E+08	1.10E-05	4.60E+02	18.00
1060 Alloy	6.90E+10	0.330	2.70E+03	2.70E+10	6.89E+07	2.76E+07	2.40E-05	9.00E+02	200.00
1060-O (SS)	6.90E+10	0.330	2.71E+03	2.60E+10	7.00E+07	3.00E+07	2.40E-05	9.00E+02	234.00
1060-H12	6.90E+10	0.330	2.71E+03	2.60E+10	8.50E+07	7.50E+07	2.36E-05	9.00E+02	230.00
1060-H12 Rod (SS)	6.90E+10	0.330	2.71E+03	2.60E+10	8.50E+07	5.70E+07	2.40E-05	9.00E+02	230.00
1060-H14	6.90E+10	0.330	2.71E+03	2.60E+10	9.50E+07	9.00E+07	2.36E-05	9.00E+02	230.00
1060-H16	6.90E+10	0.330	2.71E+03	2.60E+10	1.10E+08	1.05E+08	2.36E-05	9.00E+02	230.00
1060-H18	6.90E+10	0.330	2.71E+03	2.60E+10	1.30E+08	1.25E+08	2.36E-05	9.00E+02	230.00
1060-H18 Rod (SS)	6.90E+10	0.330	2.71E+03	2.60E+10	1.30E+08	1.08E+08	2.40E-05	9.00E+02	230.00
1100-O Rod (SS)	6.89E+10	0.330	2.71E+03	2.60E+10	8.96E+07	3.45E+07	2.40E-05	9.04E+02	222.00
1100-H12 Rod (SS)	6.89E+10	0.330	2.71E+03	2.60E+10	1.10E+08	9.93E+07	2.40E-05	9.04E+02	220.00
1100-H16 Rod (SS)	6.89E+10	0.330	2.71E+03	2.60E+10	1.30E+08	1.23E+08	2.40E-05	9.04E+02	220.00
1100-H26 Rod (SS)	6.90E+10	0.330	2.70E+03	2.60E+10	1.30E+08	1.19E+08	0.00E+00	9.00E+02	230.00
1345 Alloy	6.90E+10	0.330	2.70E+03	2.70E+10	8.27E+07	2.76E+07	2.40E-05	1.00E+03	220.00
1350 Alloy	6.90E+10	0.330	2.70E+03	2.70E+10	8.27E+07	2.76E+07	2.40E-05	1.00E+03	230.00
201.0-T6 Insulated Mold Casting (SS)	7.10E+10	0.330	2.80E+03	2.30E+10	3.59E+08	3.49E+08	3.50E-05	9.63E+02	121.00
201.0-T7 Insulated Mold Casting (SS)	7.10E+10	0.330	2.80E+03	2.30E+10	3.45E+08	3.44E+08	1.90E-05	9.63E+02	121.00
201.0-T43 Insulated Mold Casting (SS)	7.10E+10	0.330	2.80E+03	2.30E+10	2.73E+08	2.25E+08	1.90E-05	9.63E+02	121.00
2014 Alloy	7.30E+10	0.330	2.80E+03	2.80E+10	1.65E+08	9.65E+07	2.30E-05	9.60E+02	160.00
2014-O	7.24E+10	0.330	2.80E+03	2.80E+10	1.85E+08	9.50E+07	2.30E-05	8.80E+02	192.00
2014-T4	7.24E+10	0.330	2.80E+03	2.80E+10	4.25E+08	2.90E+08	2.30E-05	8.80E+02	134.00
2014-T6	7.24E+10	0.330	2.80E+03	2.80E+10	4.70E+08	4.15E+08	2.30E-05	8.80E+02	155.00
2018 Alloy	7.40E+10	0.330	2.80E+03	2.70E+10	4.21E+08	3.17E+08	2.20E-05	1.00E+03	150.00
2024 Alloy (SN)	7.30E+10	0.330	2.80E+03	2.80E+10	1.86E+08	7.58E+08	2.30E-05	8.00E+02	140.00
2024-O	7.24E+10	0.330	2.78E+03	2.80E+10	1.85E+08	7.50E+07	2.32E-05	8.75E+02	193.00
2024-T3	7.24E+10	0.330	2.78E+03	2.80E+10	4.85E+08	3.45E+08	2.32E-05	8.75E+02	120.00
2024-T4	7.24E+10	0.330	2.78E+03	2.80E+10	4.70E+08	3.25E+08	2.32E-05	8.75E+02	120.00
2024-T361	7.24E+10	0.330	2.78E+03	2.80E+10	4.95E+08	3.95E+08	2.32E-05	8.75E+02	120.00
2219-O	7.20E+10	0.330	2.84E+03	2.70E+10	1.70E+08	7.00E+07	2.23E-05	8.64E+02	170.00
2219-T31	7.20E+10	0.330	2.84E+03	2.70E+10	3.60E+08	2.50E+08	2.23E-05	8.64E+02	116.00
2219-T37	7.20E+10	0.330	2.84E+03	2.70E+10	3.95E+08	3.15E+08	2.23E-05	8.64E+02	116.00
2219-T62	7.20E+10	0.330	2.84E+03	2.70E+10	4.15E+08	2.90E+08	2.23E-05	8.64E+02	120.00
2219-T81	7.20E+10	0.330	2.84E+03	2.70E+10	4.55E+08	3.50E+08	2.23E-05	8.64E+02	120.00
2219-T87	7.20E+10	0.330	2.84E+03	2.70E+10	4.75E+08	3.95E+08	2.23E-05	8.64E+02	120.00
2618-T61 (SS)	7.45E+10	0.330	2.76E+03	2.70E+10	4.41E+08	3.72E+08	2.20E-05	8.75E+02	146.00
3003 Alloy	6.90E+10	0.330	2.70E+03	2.70E+10	1.10E+08	4.14E+07	2.30E-05	1.00E+03	170.00
3003-O	6.90E+10	0.330	2.73E+03	2.50E+10	1.10E+08	4.00E+07	2.32E-05	8.93E+02	193.00
3003-O, Rod (SS)	6.90E+10	0.330	2.73E+03	2.50E+10	1.05E+08	3.60E+07	2.30E-05	8.93E+02	193.00
3003-H12	6.90E+10	0.330	2.73E+03	2.50E+10	1.30E+08	1.25E+08	2.32E-05	8.93E+02	162.00
3003-H12, Rod (SS)	6.90E+10	0.330	2.73E+03	2.50E+10	1.30E+08	1.25E+08	2.30E-05	8.93E+02	162.00
3003-H14	6.90E+10	0.330	2.73E+03	2.50E+10	1.50E+08	1.45E+08	2.32E-05	8.93E+02	159.00
3003-H14, Rod (SS)	6.90E+10	0.330	2.73E+03	2.50E+10	1.50E+08	1.45E+08	2.30E-05	8.93E+02	159.00
3003-H16	6.90E+10	0.330	2.73E+03	2.50E+10	1.80E+08	1.70E+08	2.32E-05	8.93E+02	157.00
3003-H18	6.90E+10	0.330	2.73E+03	2.50E+10	2.00E+08	1.85E+08	2.32E-05	8.93E+02	155.00
3003-H18, Rod (SS)	6.90E+10	0.330	2.73E+03	2.50E+10	2.00E+08	1.85E+08	2.30E-05	8.93E+02	155.00
3004-H34, Rod (SS)	6.89E+10	0.350	2.72E+03	2.50E+10	2.41E+08	2.00E+08	2.40E-05	8.93E+02	163.00
3004-O, Rod (SS)	6.89E+10	0.350	2.72E+03	2.50E+10	1.79E+08	6.90E+07	2.40E-05	8.93E+02	163.00
356.0-T6 Permanent Mold cast (SS)	7.24E+10	0.330	2.68E+03	2.72E+10	2.28E+08	1.52E+08	2.10E-05	9.63E+02	151.00
4032-T6	7.90E+10	0.340	2.68E+03	2.60E+10	3.80E+08	3.15E+08	1.94E-05	8.50E+02	138.00
5052-O	7.00E+10	0.330	2.68E+03	2.59E+10	1.95E+08	9.00E+07	2.38E-05	8.80E+02	137.00
5052-O, Rod (SS)	7.00E+10	0.330	2.68E+03	2.59E+10	1.95E+08	7.24E+07	2.40E-05	8.80E+02	137.00
5052-H32	7.00E+10	0.330	2.68E+03	2.59E+10	2.30E+08	1.95E+08	2.38E-05	8.80E+02	137.00
5052-H34	7.00E+10	0.330	2.68E+03	2.59E+10	2.60E+08	2.15E+08	2.38E-05	8.80E+02	137.00
5052-H36	7.00E+10	0.330	2.68E+03	2.59E+10	2.75E+08	2.40E+08	2.38E-05	8.80E+02	127.00
5052-H38	7.00E+10	0.330	2.68E+03	2.59E+10	2.90E+08	2.55E+08	2.38E-05	8.80E+02	137.00
5052-H38, Rod (SS)	7.00E+10	0.330	2.68E+03	2.59E+10	2.90E+08	2.55E+08	2.40E-05	8.80E+02	137.00
5154-O, Rod (SS)	7.03E+10	0.330	2.66E+03	2.59E+10	2.41E+08	1.39E+08	2.40E-05	9.00E+02	125.00
5086-H32, Rod (SS)	7.10E+10	0.330	2.66E+03	2.64E+10	2.90E+08	6.89E+07	2.40E-05	9.00E+02	125.00
5454-O	7.00E+10	0.330	2.69E+03	2.60E+10	2.50E+08	1.15E+08	2.36E-05	9.00E+02	134.00
5454-H32	7.00E+10	0.330	2.69E+03	2.60E+10	2.75E+08	2.05E+08	2.36E-05	9.00E+02	134.00
5454-H34	7.00E+10	0.330	2.69E+03	2.60E+10	3.05E+08	2.40E+08	2.36E-05	9.00E+02	134.00
5454-H111	7.00E+10	0.330	2.69E+03	2.60E+10	2.60E+08	1.80E+08	2.36E-05	9.00E+02	134.00
5454-H112	7.00E+10	0.330	2.69E+03	2.60E+10	2.50E+08	1.25E+08	2.36E-05	9.00E+02	134.00
6061 Alloy	6.90E+10	0.330	2.70E+03	2.60E+10	1.24E+08	5.51E+07	2.40E-05	1.30E+03	170.00
6061-O (SS)	6.90E+10	0.330	2.70E+03	2.60E+10	1.25E+08	6.21E+07	2.40E-05	8.96E+02	180.00
6061-T4 (SS)	6.90E+10	0.330	2.70E+03	2.60E+10	2.40E+08	2.28E+08	2.40E-05	8.96E+02	154.00
6061-T6 (SS)	6.90E+10	0.330	2.70E+03</						

6063-T5	6.90E+10	0.330	2.70E+03	2.58E+10	1.85E+08	1.45E+08	2.34E-05	9.00E+02	209.00
6063-T6	6.90E+10	0.330	2.70E+03	2.58E+10	2.40E+08	2.15E+08	2.34E-05	9.00E+02	209.00
6063-T6, Rod (SS)	6.90E+10	0.330	2.70E+03	2.58E+10	2.40E+08	2.15E+08	2.30E-05	9.00E+02	209.00
6063-T83	6.90E+10	0.330	2.70E+03	2.58E+10	2.55E+08	2.40E+08	2.34E-05	9.00E+02	201.00
7050-T73510	7.20E+10	0.330	2.83E+03	2.69E+10	4.95E+08	4.35E+08	2.36E-05	8.60E+02	155.00
7050-T7451	7.20E+10	0.330	2.83E+03	2.69E+10	5.25E+08	4.70E+08	2.36E-05	8.60E+02	157.00
7050-T7651	7.20E+10	0.330	2.83E+03	2.69E+10	5.50E+08	4.90E+08	2.36E-05	8.60E+02	153.00
7075-O (SS)	7.20E+10	0.330	2.81E+03	2.69E+10	2.20E+08	9.50E+07	2.40E-05	9.60E+02	173.00
7075-T6 (SN)	7.20E+10	0.330	2.81E+03	2.69E+10	5.70E+08	5.05E+08	2.36E-05	9.60E+02	130.00
7075-T6, Plate (SS)	7.20E+10	0.330	2.81E+03	2.69E+10	5.70E+08	5.05E+08	2.40E-05	9.60E+02	130.00
7079 Alloy	7.20E+10	0.330	2.70E+03	2.70E+10	0.00E+00	5.05E+08	2.50E-05	9.60E+02	120.00
Alumina	3.70E+11	0.220	3.96E+03	1.50E+11	3.00E+08	0.00E+00	7.40E-06	8.50E+02	30.00
AA356.0-F	7.24E+10	0.330	2.68E+03	2.72E+10	1.45E+08	0.00E+00	2.14E-05	9.63E+02	167.00
AA380.0-F die	7.10E+10	0.330	2.76E+03	2.65E+10	3.17E+08	1.59E+08	2.12E-05	9.63E+02	109.00
C355.0-T61 Permanent Mold cast (SS)	6.96E+10	0.330	2.71E+03	2.65E+10	2.76E+08	2.07E+08	2.20E-05	9.63E+02	151.00
Aluminium Bronze	1.10E+11	0.300	7.40E+03	4.30E+10	5.51E+08	2.76E+08	1.70E-05	3.80E+02	56.00
Beryllium Copper, UNS C17000	1.15E+11	0.300	8.26E+03	5.00E+10	4.83E+08	2.21E+08	1.67E-05	0.00E+00	118.00
Beryllium Copper, UNS C17200	1.25E+11	0.300	8.25E+03	5.00E+10	4.69E+08	1.72E+08	1.67E-05	0.00E+00	105.00
Beryllium Copper, UNS C17300	1.25E+11	0.300	8.25E+03	5.00E+10	4.69E+08	1.72E+08	1.67E-05	0.00E+00	105.00
Beryllium S-65C, Vacuum Hot Pressed	3.03E+11	0.070	1.84E+03	1.35E+11	2.90E+08	2.07E+08	1.15E-05	0.00E+00	216.00
Beryllium S-200F, Vacuum Hot Pressed	3.03E+11	0.180	1.85E+03	1.35E+11	3.24E+08	2.41E+08	1.14E-05	0.00E+00	216.30
Brass	1.00E+11	0.330	8.50E+03	3.70E+10	4.78E+08	2.40E+08	1.80E-05	3.90E+02	110.00
Chromium Copper, UNS C18200	1.30E+11	0.000	8.89E+03	5.00E+10	2.34E+08	9.70E+07	1.76E-05	0.00E+00	171.00
Copper	1.10E+11	0.370	8.90E+03	4.00E+10	3.94E+08	2.59E+08	2.40E-05	3.90E+02	390.00
Commercial Bronze, UNS C22000 (90-10)	1.15E+11	0.000	8.80E+03	4.40E+10	2.55E+08	6.90E+07	1.84E-05	0.00E+00	189.00
Copper-Cobalt-Beryllium alloy, UNS C18200	1.25E+11	0.000	8.75E+03	0.00E+00	3.10E+08	1.72E+08	1.76E-05	0.00E+00	0.00
Free-Cutting Brass, UNS C36000	9.70E+10	0.000	8.49E+03	3.70E+10	3.38E+08	1.24E+08	2.05E-05	0.00E+00	115.00
High-leaded brass, UNS C34200	1.05E+11	0.000	8.50E+03	3.90E+10	3.38E+08	1.17E+08	2.03E-05	0.00E+00	115.00
Leaded Commercial Bronze	1.10E+11	0.370	8.70E+03	4.10E+10	2.55E+08	8.27E+07	3.20E-05	3.40E+02	26.00
Manganese Bronze	1.10E+11	0.370	8.30E+03	3.90E+10	4.48E+08	2.07E+08	2.20E-05	3.80E+02	9.60
Nickel silver 65-12, UNS C75700	1.25E+11	0.000	8.69E+03	4.70E+10	3.59E+08	1.24E+08	1.62E-05	0.00E+00	40.00
Phosphor bronze 10% D, UNS C52400	1.10E+11	0.000	8.78E+03	4.10E+10	4.55E+08	1.93E+08	1.84E-05	0.00E+00	50.00
Tin Bearing Bronze	1.10E+12	0.330	8.30E+03	3.70E+10	2.62E+08	1.10E+08	1.80E-05	3.80E+02	47.00
Wrought Copper	1.10E+11	0.330	8.40E+03	4.00E+10	0.00E+00	0.00E+00	2.00E-05	3.80E+02	230.00
Commercially Pure titanium (Ti-55) UNS R50700	1.05E+11	0.370	4.50E+03	4.50E+10	4.40E+08	3.77E+08	9.00E-06	5.23E+02	19.90
Commercially Pure CP-Ti UNS R50700	1.05E+11	0.370	4.51E+03	4.50E+10	5.50E+08	5.00E+08	9.00E-06	5.30E+02	17.20
Commercially Pure CP-Ti UNS R50400	1.05E+11	0.370	4.51E+03	4.50E+10	3.44E+08	3.70E+08	9.00E-06	0.00E+00	16.40
Commercially Pure Grade 2 Textured (SAE 1020)	1.05E+11	0.330	4.51E+03	0.00E+00	4.85E+08	3.45E+08	9.00E-06	0.00E+00	21.79
Commercially Pure grade 2 longitudinal	1.05E+11	0.330	4.51E+03	0.00E+00	4.85E+08	3.45E+08	9.00E-06	0.00E+00	21.79
Ti-3Al-8V-6Cr-4Mo-4Zr (SS)	1.04E+11	0.330	4.82E+03	4.00E+10	1.22E+09	1.03E+09	8.00E-06	5.15E+02	6.20
Ti-5Al-2.5Sn Annealed (SS)	1.10E+11	0.310	4.48E+03	4.80E+10	8.61E+08	7.45E+08	9.00E-06	5.30E+02	7.80
Ti-6Al-2Sn-2Zr-2Mo-2Cr-0.25Si (SS)	1.23E+11	0.330	4.65E+03	4.60E+10	1.16E+09	1.07E+09	9.00E-06	5.00E+02	7.80
Ti-6Al-4V Solution treated and aged (SS)	1.05E+11	0.310	4.43E+03	4.10E+10	8.27E+08	1.05E+09	9.00E-06	5.86E+02	6.70
Ti-8Al-1Mo-1V annealed sheet (SS)	1.20E+11	0.320	4.37E+03	4.60E+10	9.37E+08	9.31E+08	8.00E-06	5.02E+02	6.00
Ti-8Mn annealed sheet (SS)	1.15E+11	0.330	4.73E+03	4.90E+10	9.00E+08	7.93E+05	9.00E-06	4.95E+02	10.90
Ti-10V-2Fe-3Al Solution Treated Bar (SAE 1020)	1.10E+11	0.330	4.65E+03	4.10E+10	1.00E+09	8.27E+08	1.00E-05	5.25E+02	7.80
TiMETAL 35A CP Titanium (ASTM G101)	1.05E+11	0.340	4.51E+03	0.00E+00	3.45E+08	2.20E+08	8.60E-06	0.00E+00	21.97
Titanium Ti-5Al-2.5Sn	1.10E+11	0.310	4.48E+03	4.80E+10	8.61E+08	8.27E+08	9.40E-06	5.30E+02	7.80
Titanium Ti-8Al-1Mo-1V	1.20E+11	0.320	4.37E+03	4.60E+10	9.37E+08	9.10E+08	8.50E-06	5.02E+02	6.00
Titanium Ti-8Mn, Annealed	1.15E+11	0.330	4.73E+03	4.90E+10	9.00E+08	8.10E+08	8.60E-06	4.95E+02	10.90
Titanium Ti-13V-11Cr-3Al Solution Treated	9.90E+10	0.300	4.82E+03	4.30E+10	9.90E+08	8.30E+08	9.67E-06	5.45E+02	6.90
Zinc AC43A (Zn-4Al-2.5Cu-0.04Mg; Ni) (SAE 1020)	8.55E+10	0.300	6.60E+03	0.00E+00	3.58E+08	0.00E+00	2.78E-05	4.19E+02	104.70
Zinc AG40A (Zn-4Al-0.4Mg; Zamak 3), (SAE 1020)	8.50E+10	0.300	6.60E+03	0.00E+00	2.85E+08	0.00E+00	2.74E-05	4.20E+02	113.00
Zinc AC41A Alloy, As Cast (SAE 1020)	8.50E+10	0.300	6.70E+03	0.00E+00	3.30E+08	0.00E+00	2.74E-05	4.20E+02	108.90
Zinc Alloy 7; AG40B; Zn-4Al-0.015Mg (SAE 1020)	8.50E+10	0.300	6.60E+03	0.00E+00	2.85E+08	2.85E+08	2.74E-05	4.19E+02	113.00
Duranickel#174; 301 !- Added ® (SAE 1020)	2.10E+11	0.340	8.20E+03	7.70E+10	6.20E+08	3.45E+08	1.50E-05	5.90E+02	24.00
Magnesium Alloy (SAE 1020)	2.10E+11	0.340	8.20E+03	7.70E+10	0.00E+00	0.00E+00	1.50E-05	5.90E+02	24.00
Monel#174; 400 !- Added ® (SAE 1020)	1.80E+11	0.340	8.80E+03	6.70E+10	4.48E+08	2.21E+08	1.40E-05	4.30E+02	22.00
Nylon 101	1.00E+09	0.300	1.15E+03	0.00E+00	7.93E+07	6.00E+07	1.00E-06	1.50E+03	0.53
ABS	2.00E+09	0.394	1.02E+03	3.19E+08	3.00E+07	0.00E+00	0.00E+00	1.39E+03	0.23
ABS PC	2.41E+09	0.390	1.07E+03	8.62E+08	4.00E+07	0.00E+00	0.00E+00	1.90E+03	0.26
Acrylic (Medium-high impact)	2.40E+09	0.350	1.20E+03	8.90E+08	4.87E+07	4.84E+07	5.20E-05	1.50E+03	0.21
Delrin 2700 NC010, Low Viscosity Acetal	2.90E+09	0.300	1.41E+02	0.00E+00	4.07E+07	6.30E+07	0.00E+00	0.00E+00	0.00
Nylon 610	8.30E+09	0.280	1.40E+03	3.20E+09	6.21E+07	6.89E+07	3.00E-05	1.50E+03	0.53
PA Type 6	2.62E+09	0.340	1.12E+03	9.70E+08	9.00E+07	0.00E+00	0.00E+00	1.60E+03	0.23
PBT General Purpose	1.93E+09	0.390	1.30E+03	6.90E+08	5.65E+07	0.00E+00	0.00E+00	1.42E+03	0.27
PC High Viscosity	2.32E+09	0.391	1.19E+03	8.29E+08	6.27E+07	0.00E+00	0.00E+00	1.54E+03	0.19
PE High Density	1.07E+09	0.410	9.52E+02	3.77E+08	2.21E+07	0.00E+00	0.00E+00	1.80E+03	0.46
PE LowMedium Density	1.72E+08	0.439	9.17E+02	5.94E+07	1.33E+07	0.00E+00	0.00E+00	1.84E+03	0.32
POM Acetal Copolymer	2.60E+09	0.386	1.39E+03	9.33E+08	7.15E+07	6.06E+07	0.00E+00	1.38E+03	0.22
PP Copolymer	8.96E+08	0.410	8.90E+02	3.16E+08	2.76E+07	0.00E+00	0.00E+00	1.88E+03	0.15
PS MediumHigh Flow	2.28E+09	0.387	1.04E+03	8.17E+08	3.59E+07	0.00E+00	0.00E+00	1.69E+03	0.12
PVC 0.007 Plasticized	6.00E+06	0.470	1.29E+03	2.00E+06	1.30E+07	0.00E+00	0.00E+00	1.60E+03	0.16
PVC Rigid	2.41E+09	0.383	1.30E+03	8.67E+08	4.07E+07	0.00E+00	0.00E+00	1.36E+03	0.15
Very Low Density PE (SS)	1.72E+08	0.300	9.05E+02	0.00E+00	3.40E+07	6.89E+06	0.00E+00	1.84E+03	0.32
Perspex (TM) GS Acrylic Cast Sheet	0.00E+00	0.000	1.19E+03	0.00E+00	7.50E+07	0.00E+00	0.00E+00	0.00E+00	0.00
PTFE (general)	0.00E+00	0.000	2.32E+03	0.00E+00	7.58E+06	0.00E+00	0.00E+00	0.00E+00	0.00
Beryllium (Be)	3.03E+11	0.700	1.84E+03	1.35E+11	3.70E+08	2.40E+08	1.15E-05	0.00E+00	216.00
Cobalt (Co)	2.11E+11	0.310	8.90E+03	8.80E+10	2.35E+08	0.00E+00	1.20E-05	4.10E+02	69.00
Molybdenum (Mo)	3.20E+11	0.380	1.00E+04	1.20E+11	5.00E+08	3.25E+08	5.00E-06	2.70E+02	150.00
Nickel (Ni)	2.10E+11	0.310	8.50E+03	7.90E+10	3.17E+08	5.90E+07	1.70E-05	4.60E+02	43.00
Pure Gold	7.80E+10	0.420	1.90E+04	2.60E+10	1.03E+08	0.00E+00	1.40E-05	1.30E+02	300.00
Pure Lead (Pb)	1.40E+10	0.400	1.10E+04	4.90E+10	0.00E+00	0.00E+00	5.30E-05	1.30E+02	35.00
Pure Silver (Ag)	7.10E+10	0.370	1.10E+04	2.50E+10	1.25E+08	0.00E+00	2.00E-05	2.30E+02	420.00
Titanium (Ti)	1.10E+11	0.300	4.60E+03	4.30E+10	2.35E+08	1.40E+08	8.80E-06	4.60E+02	22.00
Tungsten (W)	4.00E+11	0.280	1.90E+04	1.60E+11	3.10E+08	7.50E+08	4.50E-06	1.30E+02	200.00
Vanadium (V)	1.40E+11	0.360	6.10E+03	5.10E+10	5.30E+07	0.00E+00	8.30E-06	5.00E+02	31.00
Zirconium (Zr)	9.90E+10	0.340	6.60E+03	3.60E+10	3.50E+08	5.90E+07	1.10E-05	2.90E+02	1.70
Air (空气)	0.00E+00	0.000	1.10E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00E+03	0.03
Ceramic Porcelain (陶瓷)	2.21E+11	0.220	2.30E+03	9.04E+10	1.72E+08	0.00E+00	1.08E-05	8.78E+02	1.49
Glass (玻璃)	6.89E+10	0.230	2.46E+03	2.80E+10	0.00E+00	0.00E+00	9.00E-06	8.35E+02	0.75
Rubber (橡胶)	6.10E+06	0.490	1.00E+03	2.90E+06	1.38E+07	9.24E+06	6.70E-04	0.00E+00	0.14
Water (水)	0.00E+00	0.000	1.00E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.20E+03	0.61