

Ti 6-22-22 Bars Rolled & Heat Treated

RMI Ht. No. 8003241

RMI P.O. 30044976 - supplied as 4" dia. turned billet.

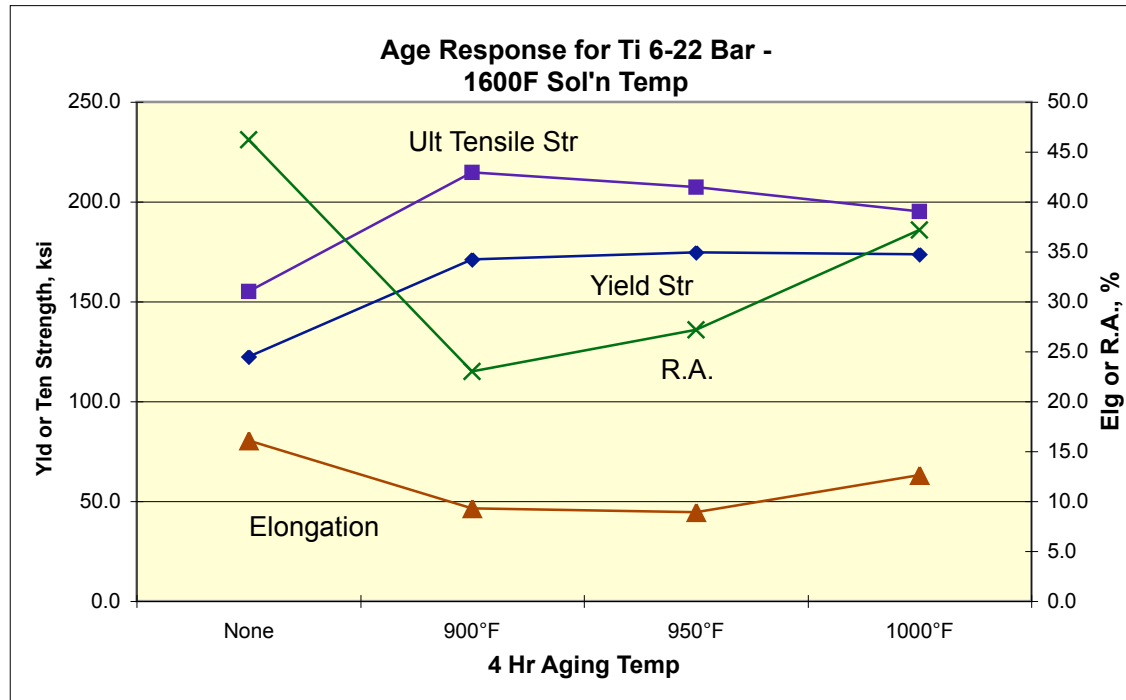
Bar dia. - 0.820 nom. To grind to 0.760" finished dia.

Rolled @ 1675°F - roughing & finishing passes.

Sample ID	# Pcs	Sol'n Temp	Sol'n Time	Sol'n Cool	Age Temp	Age Time	Age Cool	1 test bar only			
								UTS, ksi	Yld, ksi	Elg, %	RA, %
ANN	3	1350°F	2 Hrs	AC	---	---	---	163.7	157.7	13.0	39.1
1	2	1600°F	1 Hr	WQ	---	---	---	155.0	122.5	16.1	46.2
2	2	1650°F	1 Hr	WQ	---	---	---	166.0	No Test	17.3	45.1
3	2	1700°F	1 Hr	WQ	---	---	---	187.7	151.3	15.8	28.9
1A	2	1600°F	1 Hr	WQ	900°F	4 Hrs	AC	214.7	171.2	9.3	23.0
1B	2	1600°F	1 Hr	WQ	950°F	4 Hrs	AC	207.5	174.8	8.9	27.2
1C	2	1600°F	1 Hr	WQ	1000°F	4 Hrs	AC	195.3	173.6	12.6	37.2
2A	2	1650°F	1 Hr	WQ	900°F	4 Hrs	AC	220.3	174.0	6.0	17.5
2B	2	1650°F	1 Hr	WQ	950°F	4 Hrs	AC	212.5	179.2	8.5	24.8
2C	2	1650°F	1 Hr	WQ	1000°F	4 Hrs	AC	199.7	176.2	9.9	35.0
3A	2	1700°F	1 Hr	WQ	900°F	4 Hrs	AC	231.9	200.9	6.7	16.4
3B	2	1700°F	1 Hr	WQ	950°F	4 Hrs	AC	228.4	200.6	4.5	28.1
3C	2	1700°F	1 Hr	WQ	1000°F	4 Hrs	AC	219.8	198.9	9.7	24.3

1600°F Anneal Temp Age Data
 Sol'n Trtmt 1600°F 1 Hr WQ

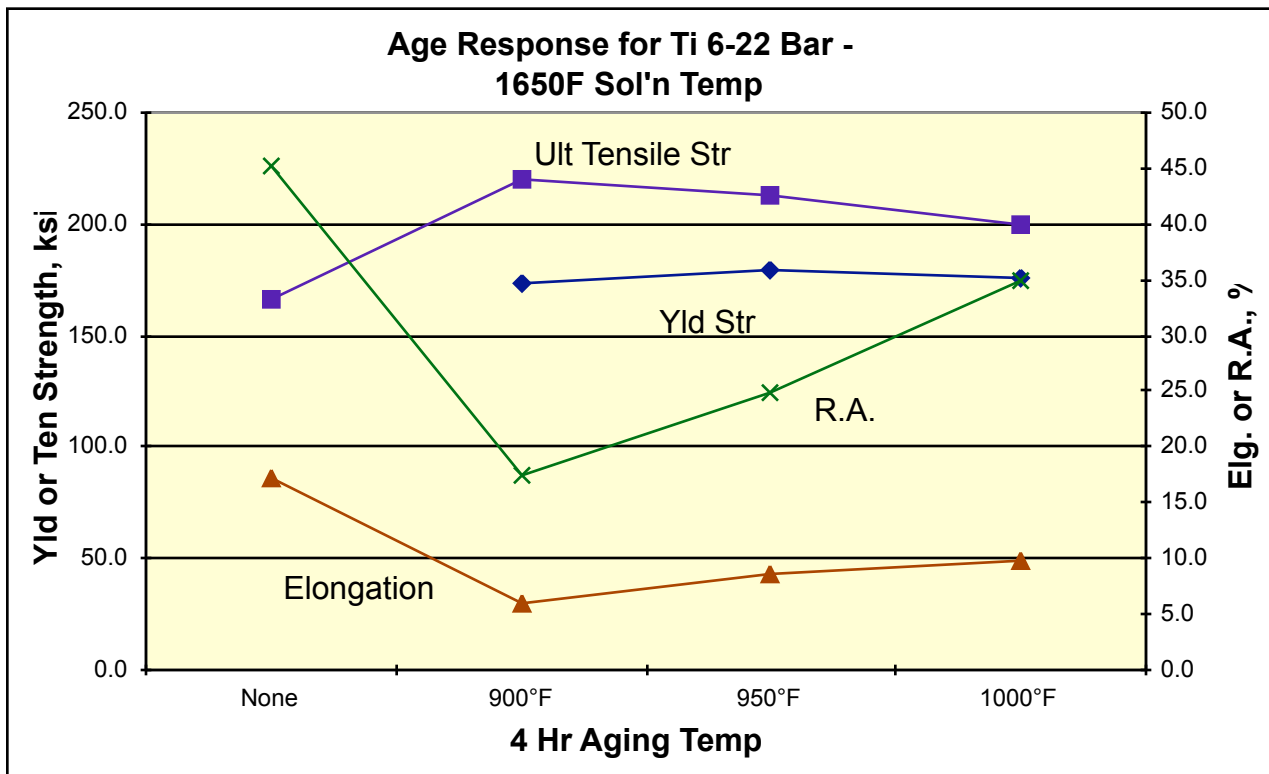
Sample ID	Age Temp	Age Time	Age Cool	Age Temp	UTS, ksi	Yld, ksi	Elg, %	RA, %
1	---	---	---	None	155.0	122.5	16.1	46.2
1A	900°F	4 Hrs	AC	900°F	214.7	171.2	9.3	23.0
1B	950°F	4 Hrs	AC	950°F	207.5	174.8	8.9	27.2
1C	1000°F	4 Hrs	AC	1000°F	195.3	173.6	12.6	37.2



1650°F Anneal Temp Age Data

Sol'n Trtmt 1650°F 1 Hr WQ

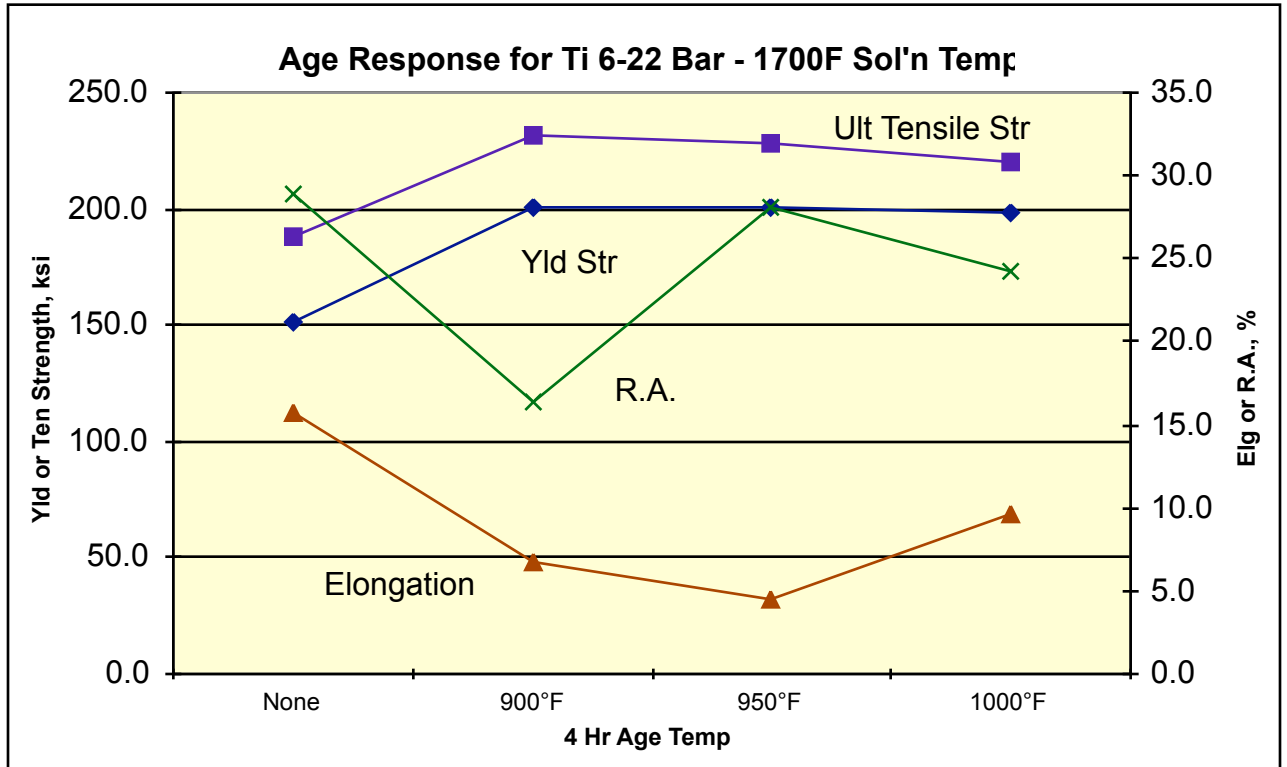
Sample ID	Age Temp	Age Time	Age Cool	Age Temp	UTS, ksi	Yld, ksi	Elg, %	RA, %
2	---	---	---	None	166.0		17.3	45.1
2A	900°F	4 Hrs	AC	900°F	220.3	174.0	6.0	17.5
2B	950°F	4 Hrs	AC	950°F	212.5	179.2	8.5	24.8
2C	1000°F	4 Hrs	AC	1000°F	199.7	176.2	9.9	35.0



1700°F Anneal Temp Age Data

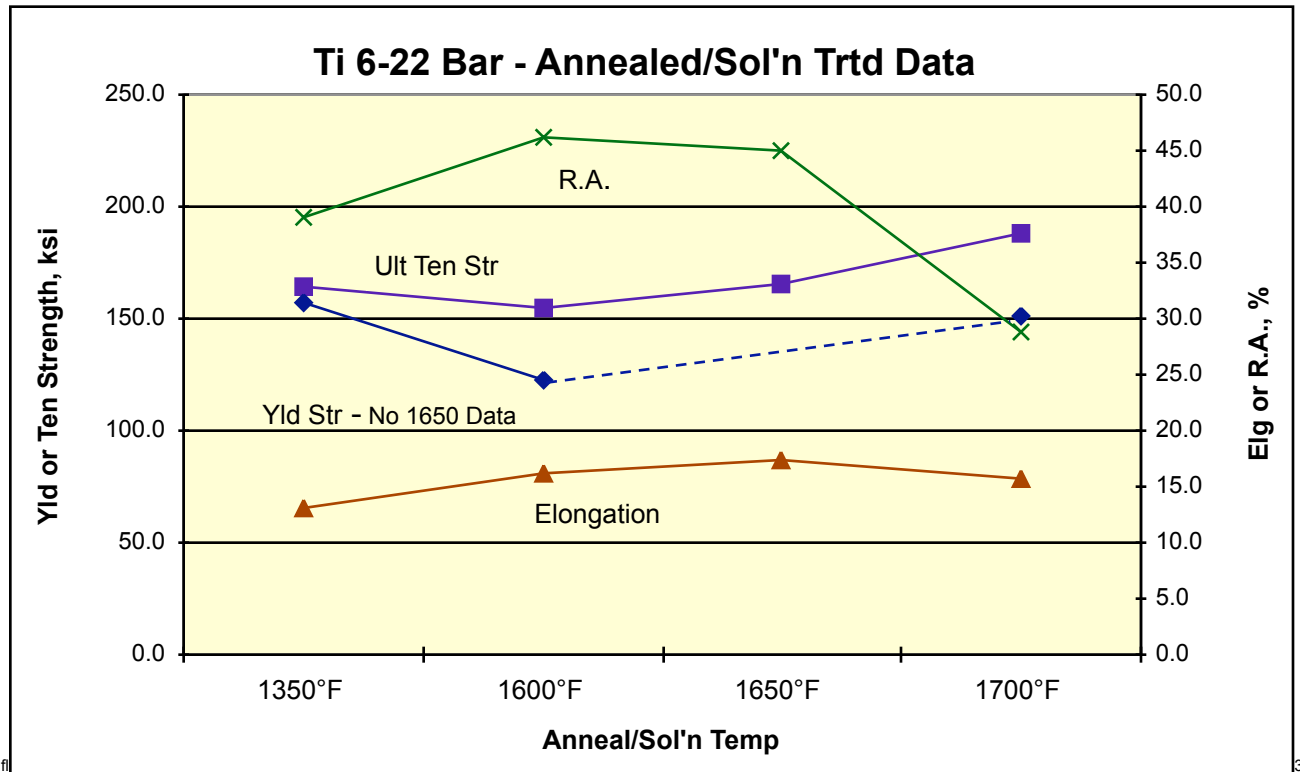
Sol'n Trtmt 1700°F 1 Hr WQ

Sample ID	Age Temp	Age Time	Age Cool	Age Temp	UTS, ksi	Yld, ksi	Elg, %	RA, %
3	---	---	---	None	187.7	151.3	15.8	28.9
3A	900°F	4 Hrs	AC	900°F	231.9	200.9	6.7	16.4
3B	950°F	4 Hrs	AC	950°F	228.4	200.6	4.5	28.1
3C	1000°F	4 Hrs	AC	1000°F	219.8	198.9	9.7	24.3



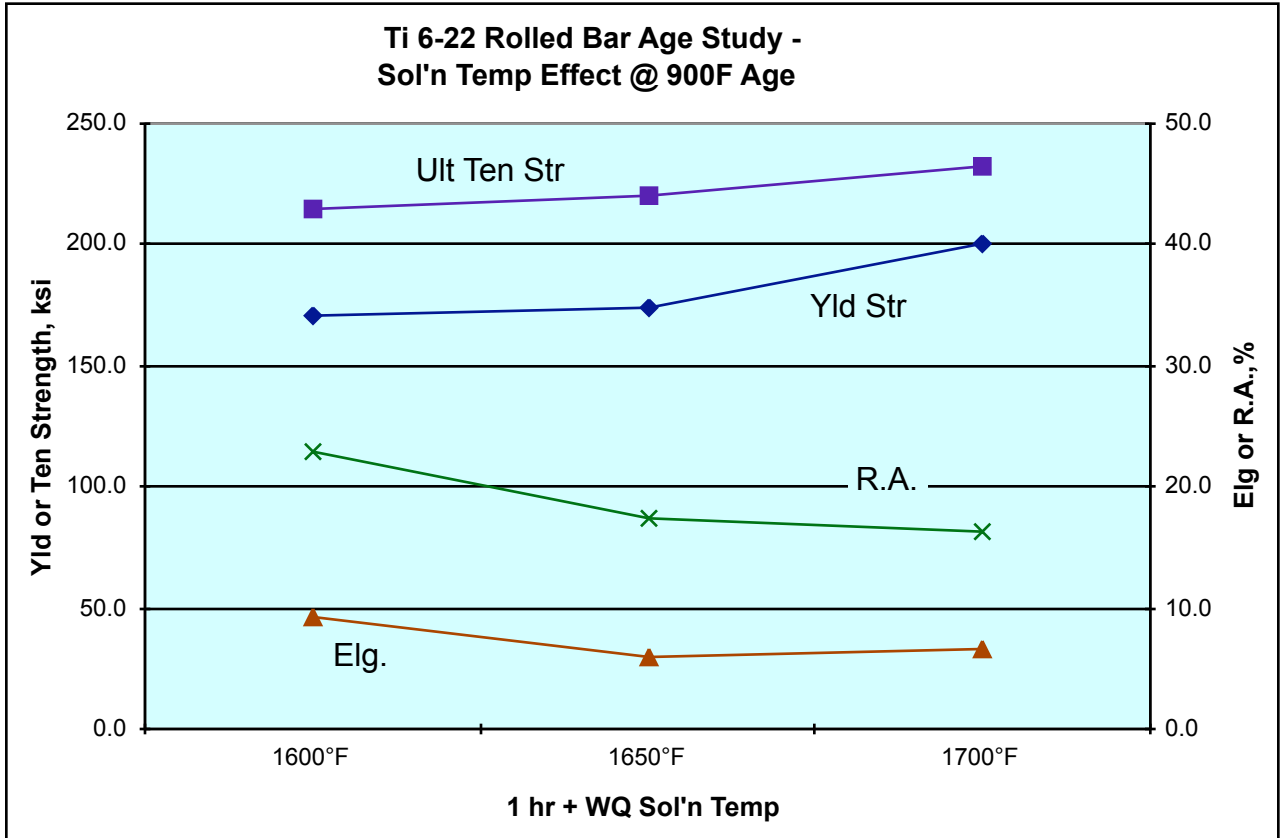
Sol'n Trtd Only Samples
1 Hr - WQ

Sample ID	Sol'n Temp	Sol'n Time	Sol'n Cool	Sol'n Temp	UTS, ksi	Yld, ksi	Elg, %	RA, %
ANN	1350°F	2 Hrs	AC	1350°F	163.7	157.7	13.0	39.1
1	1600°F	1 Hr	WQ	1600°F	155.0	122.5	16.1	46.2
2	1650°F	1 Hr	WQ	1650°F	166.0		17.3	45.1
3	1700°F	1 Hr	WQ	1700°F	187.7	151.3	15.8	28.9



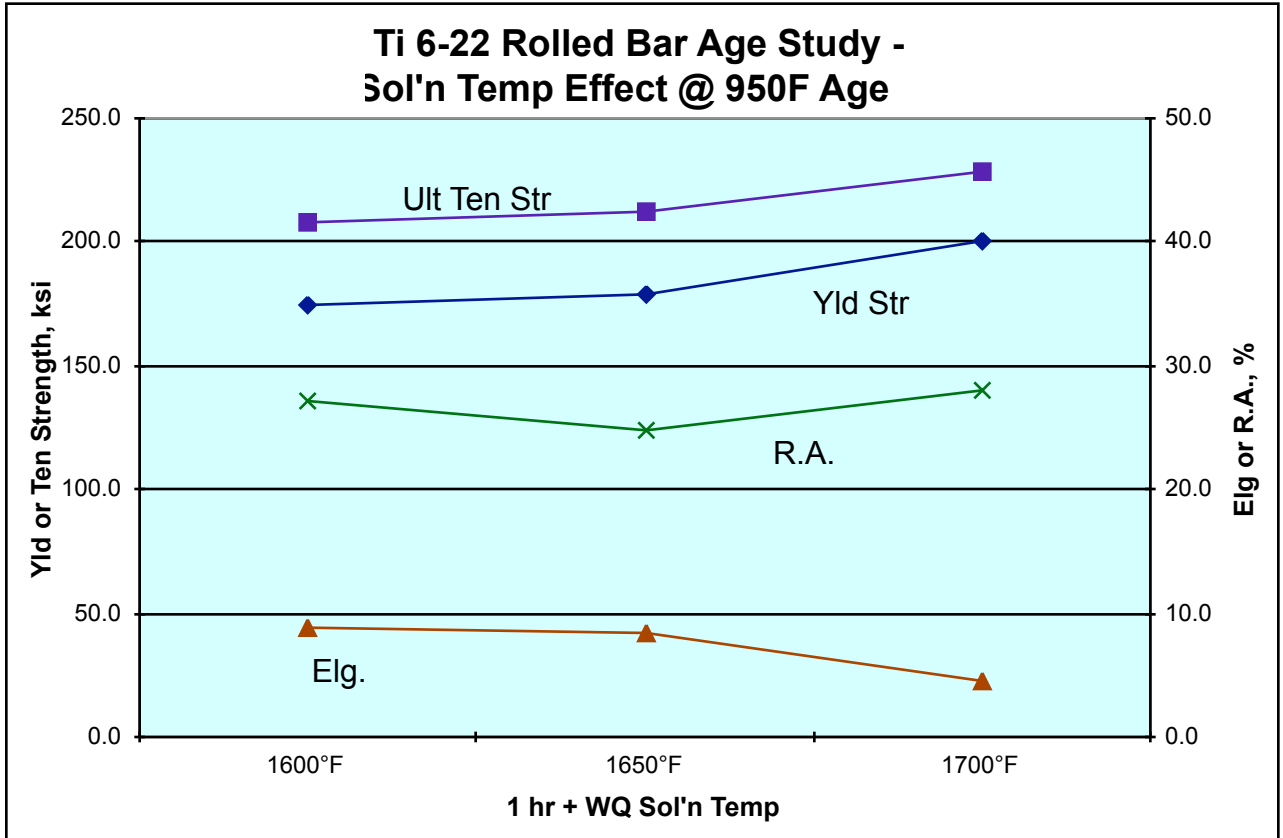
**900°F Age Temp Data
4 hrs Age Time + AC**

Sample ID	Sol'n Temp	Sol'n Time	Sol'n Cool	Sol'n Temp	UTS, ksi	Yld, ksi	Elg, %	RA, %
1A	1600°F	1 Hr	WQ	1600°F	214.7	171.2	9.3	23.0
2A	1650°F	1 Hr	WQ	1650°F	220.3	174.0	6.0	17.5
3A	1700°F	1 Hr	WQ	1700°F	231.9	200.9	6.7	16.4



**950°F Age Temp Data
4 hrs Age Time + AC**

Sample ID	Sol'n Temp	Sol'n Time	Sol'n Cool	Sol'n Temp	UTS, ksi	Yld, ksi	Elg, %	RA, %
1B	1600°F	1 Hr	WQ	1600°F	207.5	174.8	8.9	27.2
2B	1650°F	1 Hr	WQ	1650°F	212.5	179.2	8.5	24.8
3B	1700°F	1 Hr	WQ	1700°F	228.4	200.6	4.5	28.1



**1000°F Age Temp Data
4 hrs Age Time + AC**

Sample ID	Sol'n Temp	Sol'n Time	Sol'n Cool	Sol'n Temp	UTS, ksi	Yld, ksi	Elg, %	RA, %
1C	1600°F	1 Hr	WQ	1600°F	195.3	173.6	12.6	37.2
2C	1650°F	1 Hr	WQ	1650°F	199.7	176.2	9.9	35.0
3C	1700°F	1 Hr	WQ	1700°F	219.8	198.9	9.7	24.3

