

CRAFTSMAN'S CRIBSHEET

NUMBER
38

Miles Free – Director of Technology and Industry Research **Technical** **Regulatory** **Quality** **Management**

Heat Treat Colors for Steel

Degrees Farenheit	HEAT COLORS	Degrees Centigrade
2500	[Yellow]	1371
2400	[Yellow-Orange]	1316
2300	[Orange]	1260
2200	[Orange-Red]	1204
2100	[Red-Orange]	1149
2000	[Red]	1093
1900	[Dark Red]	1038
1800	[Dark Orange-Red]	982
1700	[Orange-Red]	927
1600	[Red-Orange]	871
1500	[Red]	816
1400	[Dark Red]	760
1300	[Dark Red]	704
1200	[Dark Red]	649
1100	[Dark Red]	593
1000	[Dark Red]	538

The above chart shows the heat treat colors for steel by temperature.

These days, pyrometers are affordable, but it is the mark of a craftsman to be able to tell temperature by eye, if only to validate the instrumentation or suspect it.

These colors were obtained from a 0.40 wt. percent carbon, alloy steel, as seen through a furnace peep hole during average daylight conditions.

All Craftsman's Cribsheets are available for viewing and download at short.productionmachining.com/cribsheets.