

METALS PREHEATING CHART

METAL GROUP	METAL DESIGNATION	APPROXIMATE PERCENT CARBON	RECOMMENDED PREHEAT
PLAIN CARBON STEEL	PLAIN CARBON STEEL	BELOW .20	UPTO 100°C TO
	PLAIN CARBON STEEL	.20 - .30	100°C - 150°C
	PLAIN CARBON STEEL	.30 - .45	150°C - 250°C
	PLAIN CARBON STEEL	.45 - .80	250°C - 400°C
CARBON MOLY STEELS	CARBON MOLY STEEL	.10 - .20	150°C - 250°C
	CARBON MOLY STEEL	.20 - .30	200°C - 300°C
	CARBON MOLY STEEL	.30 - .35	250°C - 400°C
	SILICON STRUCTURAL STEEL	.35	150°C - 250°C
MANGANESE STEELS	MEDIUM MANGANESE STEEL	.20 - .30	150°C - 250°C
	SAE T 1330 STEEL	.30	200°C - 300°C
	SAE T 1340 STEEL	.40	250°C - 400°C
	SAE T 1350 STEEL	.50	300°C - 450°C
	12% MANGANESE STEEL	1.25	USUALLY
HIGH TENSILE STEEL	MANGANESE MOLY STEEL	.20	150°C - 250°C
	JALLEN STEEL	.35 MAX	200°C - 250°C
	ARMCO HIGH TENSILE STEEL	.12 MAX	UPTO 100°C
	DOUBLE STRENGTH 1 STEEL	.12 MAX	150°C - 300°C
	DOUBLE STRENGTH 1A STEEL	.30 MAX	200°C - 350°C
	MAYARIR STEEL	.12 MAX	UPTO 150°C
	OTISCOLOY STEEL	.12 MAX	100°C - 200°C
	NAX HIGH TENSILE STEEL	.15 - .25	UPTO 150°C
	CROMANSIL STEEL	.14 MAX	150°C - 200°C

METALS PREHEATING CHART

METAL GROUP	METAL DESIGNATION	APPROXIMATE PERCENT CARBON	RECOMMENDED PREHEAT
	AW DYN-EL STEEL	.11-.14	UPTO 150°C
	CORTEN STEEL	.12 MAX	100°C - 200°C
	CHROME COPPER NICKEL STEEL	.12 MAX	100°C - 200°C
	CHROME MANGANESE STEEL	040	100°C - 200°C
	YOLOY STEEL	.06 - .35	100°C - 300°C
	HIGH-STEEL	.12 MAX	100°C - 250°C
NICKLE STEEL	SAE 2015 STEEL	.10 - .20	UPTO 150°C
	SAE 2115 STEEL	.10 - .20	100°C - 150°C
	2.5 NICKEL STEEL	.10 - .20	100°C - 200°C
	SAE 2315 STEEL	.15	100°C - 250°C
	SAE 2320 STEEL	.20	100°C - 250°C
	SAE 2330 STEEL	.30	150°C - 300°C
	SAE 2340 STEEL	040	200°C - 350°C
MEDIUM NICKLE	SAE 3115 STEEL	.15	100°C - 200°C
CHROMIUM STEEL	SAE 3125 STEEL	.25	150°C - 250°C
	SAE 3130 STEEL	.30	200°C - 350°C
	SAE 3140 STEEL	040	250°C - 400°C
	SAE 3150 STEEL	.50	300°C - 450°C
	SAE 3230 STEEL	.30	250°C - 350°C
	SAE 3240 STEEL	040	350°C - 500°C
	SAE 3250 STEEL	.50	450°C - 550°C
	SA. 3315 STEEL	.15	250°C - 350°C

METALS PREHEATING CHART

METAL GROUP	METAL DESIGNATION	APPROXIMATE PERCENT CARBON	RECOMMENDED PREHEAT
	SAE3325 STEEL	.25	450°C - 550°C
	SAE 3435 STEEL	.35	450°C - 550°C
	SAE 3450 STEEL	.50	450°C - 550°C
MOLY BEARING	SAE 4140 STEEL	.40	300°C - 400°C
CHROMIUM AND	SAE 4340 STEEL	.40	350°C - 450°C
CHROMIUM NICKLE	SAE 4615 STEEL	.15	200°C - 300°C
STEEL	SAE 4630 STEEL	.30	250°C - 350°C
	SAE 4640 STEEL	.40	300°C - 400°C
	SAE 4820 STEEL	.20	300°C - 400°C
LOW CHROME MOLY	2% CR 1/2% MO STEEL	UPTO .15	200°C - 300°C
STEELS	2% CR 1/2% MO STEEL	.15 - .25	250°C - 400°C
	2% CR 1 % MO STEEL	UPTO .15	250°C - 400°C
	2% CR 1 % MO STEEL	.15 - .25	300°C - 400°C
MEDIUM CHROME	5% CR 1/2% MO STEEL	UPTO .15	250°C - 400°C
MOLY STEEL	5% CR 1/2% MO STEEL	.15 - .25	300°C - 450°C
	8% CR 1 % MO STEEL	.15 MAX	300°C - 450°C
PLAIN HIGH	12 - 14% CR TYPE 410	.10	150°C - 250°C
CHROMIUM STEELS	16-18% CR TYPE 430	.10	150°C - 250°C
	23-30% CR TYPE 446	.10	150°C - 250°C
HIGH CHROME	18% CR *% NI TYPE 304	.07	USUALLY DO --- -- NOT REQUIRED PREHEAT
NICKLE STAINLESS	25-12 TYPE 309	.07	
STEEL	25-20 TYPE 310	.10	