

## STEEL GRADE FOR FASTENERS APPLICATIONS

They are steels used for cold and hot deformation to produce screws, bolts, nuts or parts intended for subsequent mechanical machining.

The strict control of the manufacturing process allows us to obtain products that are free of non-metallic inclusions, whereas the controlled rolling guarantees a product with contained decarburisation and no surface defects.

The slow final cooling of the wire guarantees a product that perfectly fulfils the strict specifications of cold deformation. The key manufacturers of nuts and bolts in Europe and abroad appreciate the quality of ORI Martin special steels, and particularly acknowledge the excellent ductility and hardenability.



### Steel grade

Steel grade	Corresponding standard		Average chemical composition								
	Werkstoff	ORI Martin	C	Mn	Si	Cr	Ni	Mo	B ppm	V	
<b>C</b>	C4C	1.0303	SC08X1	0,04	0,30	0,03	-	-	-	-	-
	C8C	1.0213	SC08X5	0,08	0,30	0,03	-	-	-	-	
	C10C	1.0214	SC10X1	0,10	0,40	0,05	-	-	-	-	
	C15C	1.0234	SC15S5	0,15	0,50	0,10	-	-	-	-	
	C20C	1.0411	SC20S2	0,20	0,60	0,10	-	-	-	-	
<b>B</b>	15B2	1.5501	S15B11	0,13	0,55	-	-	-	-	30	-
	17B2	1.5502	S18B12	0,17	0,70	-	-	-	-	20	-
	23B2	1.5508	S21B11	0,21	0,80	-	0,15	-	-	20	-
	28B2	1.5510	S25B12	0,27	0,80	-	0,25	-	-	20	-
	33B2	1.5514	S34B11	0,32	0,80	-	0,15	-	-	20	-
	35B2	1.5511	S35B11	0,37	0,75	-	-	-	-	30	-
	45B2	1.5513	S45B11	0,45	0,75	-	0,15	-	-	30	-
<b>Mn B</b>	23MnB4	1.5535	S21B13	0,22	0,95	-	0,30	-	-	20	-
	30MnB4	1.5526	S30B11	0,30	0,80	-	0,15	-	-	20	-
	36MnB4	1.5537	S35B16	0,35	0,90	-	0,15	-	-	20	-
<b>Mo B</b>	30MoB1	1.5408	S30B15	0,30	0,90	-	0,20	-	0,10	20	-
<b>Cr Ni Mo</b>	39NiCrMo3	1.6510	S38H41	0,38	0,70	-	0,80	0,80	0,20	-	-
	34NiCrMo6	1.6582	S34H61	0,34	0,70	-	1,50	1,50	0,20	-	-
<b>Cr B</b>	25CrB3		S25BC1	0,25	0,65	-	0,70	-	-	40	-
	32CrB4	1.7076	S30BC	0,32	0,80	-	1,10	-	-	20	-



**ORI**  
**MARTIN**

Steel grade	Corresponding standard			Average chemical composition							
	Werkstoff	ORI Martin		C	Mn	Si	Cr	Ni	Mo	B ppm	V
	36CrB4	1.7077	S36BC	0,36	0,80	-	1,10	-	-	20	-
<b>Cr</b>	34Cr4	1.7033	S34C41	0,34	0,70	-	1,00	-	-	-	-
	37Cr4	1.7034	S37C44	0,37	0,70	-	1,00	-	-	-	-
	41Cr4	1.7035	S41C4	0,41	0,70	-	1,00	-	-	-	-
<b>Mn Cr B</b>	27MnCrB5-2	1.7182	S27B51	0,27	1,25	-	0,45	-	-	20	-
	33MnCrB5-2	1.7185	S31B51	0,33	1,35	-	0,45	-	-	20	-
<b>Cr Mo</b>	34CrMo4	1.7220	S34L41	0,34	0,70	-	1,00	-	0,20	-	-
	42CrMo4	1.7225	S42L41	0,42	0,70	-	1,00	-	0,20	-	-
<b>Cr Mo B</b>	31CrMoB2-1	1.7272	S30B18	0,30	1,00	-	0,50	-	0,12	20	-
	32CrMoB4		S32BL1	0,32	0,80	-	1,00	-	0,12	20	-
<b>Cr Mo V</b>	21CrMoV5-7	1.7709	S21K51	0,21	0,60	-	1,35	-	0,68	-	0,28
	40CrMoV4-6	1.7711	B40K41	0,40	0,60	-	1,00	-	0,60	-	0,30