HIGH CARBON CONTENT STEELS

CASE HARDENING STEELS

EN 10132-2 EU standard

Specific qualities to obtain high core strength and surface hardness following the appropriate thermal treatment, which offers high fatigue and wear resistance in the surface area whilst maintaining a high impact resistance in the central area.

Grade	Re (N/mm²)	Rm (N/mm²)	Al% (L=80)
C10E	max 345	max 430	min 26%
C15E	max 360	max 450	min 25%
16MnCr5	max 420	max 550	min 21%
17Cr3	max 420	max 550	min 21%

HARDENING AND TEMPERING STEELS

EN 10132-3 EU standard

Wide range of qualities possessing a carbon content higher than 0.2% for different applications where the final material properties are acquired following heat treatment. ARANIA offers restricted chemicals and mechanical workings under preliminary study.

Grade	Re (N/mm²)	Rm (N/mm²)	Al% (L=80)
C22E	max 400	max 500	min 22%
C30E	max 420	max 520	min 20%
C35E	max 430	max 540	min 19%
C40E	max 440	max 550	min 18%
C45E	max 455	max 570	min 18%
C50E	max 465	max 580	min 17%
C55E	max 480	max 600	min 17%
C60E	max 495	max 620	min 17%
25Mn4	max 460	max 590	min 20%
25CrMo4	max 440	max 580	min 19%
34CrMo4	max 460	max 600	min 16%
42CrMo4	max 480	max 620	min 15%

SPRING STEELS

EN 10132-4 EU standard

Wide range of qualities for spring applications where the high strength and resistance requirements are combined.

Grade	Re (N/mm²)	Rm (N/mm²)	Al% (L=80)
C55S	max 480	max 600	min 17%
C60S	max 495	max 620	min 17%
C67S	max 510	max 640	min 16%
C75S	max 510	max 640	min 15%
51CrV4	max 550	max 700	min 13%
C85S	max 670	max 535	min 15%
C90S	max 680	max 545	min 14%
C100S	max 690	max 550	min 13%

BORON STEELS

EN 10083-3 EU standard

High formability steels due to their low carbon content, but increased mechanical properties following heat treatment thanks to the combination of elements such as carbon, manganese and boron.

Grade	Re (N/mm²)	Rm (N/mm²)	Al% (L=80)
8MnCrB3	320	440	25
20MnB5	340	480	22
27MnCrB5-2	360	500	21
30MnB5	410	540	20

* Note: Other qualities and mechanical values on request

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