

Quality E360 (Fe 690 - C50E - C55E - C60E)



According to Standard EN 10025 - 2 : 2004

Number 1.0070

Comparable Standards	German DIN	France AFNOR	Spain UNE	China GB	U.K. B.S.	Russia GOST	USA AISI - SAE	Japan JIS
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St70-2	A70 - 2	A 690			E360			
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Chemical Analysis	C% max	Si% max	Mn% max	P% max	S% max	N% max	Cu% max
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			0.55	0.55	0.014		
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Hot Work and Heat Treatment Temperatures

Temperature °C

Hot - Forming	Supply State +U	Soft Annealing +A	Isothermal Annealing +I	Normalising & Tempering	Quenching & Tempering QT	Stress-relieving +SR
1050 - 850		690 air	790 furnace cooling to 660 then air	825 - 885	830 water	50° under the temperature of tempering
				air	850 oil, polymer	

Mechanical Properties at Room Temperature

Minimum Yield Strength R^{eH}

Mpa

Nominal Thickness mm

	≤ 16	> 16	> 40	> 63	> 80	> 100	> 150	> 200
		≤ 40	≤ 63	≤ 80	≤ 100	≤ 150	≤ 200	≤ 250
	360	355	345	335	325	305	295	285

Tensile Strength R

Mpa

Nominal Thickness mm

	< 3	> 3	> 100	> 150
		≤ 100	≤ 150	≤ 250

690 to 900	670 to 830	650 to 830	640 to 830
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Minimum percentage elongation after fracture %

L = 80 mm. Normal thickness mm

L = 5.65 √S₀ Nominal thickness mm

	≤ 1	> 1	> 1.5	> 2	> 2.5	< 3	≤ 40	> 40	> 63	> 100	> 150
		≤ 1.5	≤ 2	≤ 2.5			≤ 63	≤ 100	≤ 150	≤ 250	
l	4	5	6	7	8	11	10	9	8	7	
t	3	4	5	6	7	10	9	8	7	8	