Quality	**E360 (Fe 690 - C50E - C55E - C60E)**
According to Standard	**EN 10025 - 2 : 2004**
Number	**1.0070**

ALOK INGOTS
steel re engineered
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Comparable Standards	**German DIN**	**France AFNOR**	**Spain UNE**	**China GB**	**U.K. B.S.**	**Russia GOST**	**USA AISI - SAE**	**Japan JIS**
	St70-2	A70 - 2	A 690		E360			

Chemical Analysis	**C% max**	**Si% max**	**Mn% max**	**P% max**	**S% max**	**N% max**	**Cu% max**
				0.55	0.55	0.014	

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

Minimum percentage elongation after fracture %

	L = 80 mm. Normal thickness mm				**L = 5.65 $\sqrt{S_o}$ Nominal thickness mm**					
	≤ 1	**> 1**	**> 1.5**	**> 2**	**> 2.5**	**> 3**	**> 40**	**> 63**	**> 100**	**> 150**
		≤ 1.5	**≤ 2**	**≤ 2.5**	**< 3**	**≤ 40**	**≤ 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