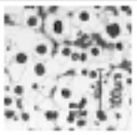
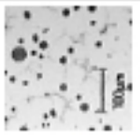
Designation in accordance with DIN EN 16124/DIN EN 13835			EN-GJS-SiMo40-6	EN-GJS-SiMo45-10	EN-GJSA-XNiSiCr35-532
Reference analysis	C		3.00 – 3.40	3.00 – 3.40	max. 2.00
for medium wall thicknesses	Si		3.80 – 4.20	4.30 – 4.70	4.00 – 6.00
	Mn		max. 0.30	max. 0.30	0.50 – 1.50
	Mo		0.5 – 0.70	0.80 – 1.10	-
	Cr		-	-	1.5 – 2.5
	Ni		-	-	34.0 – 36.0
Microstructure			 Ferrite 100:1	 Ferrite 100:1	 Austenite 100:1
Mechanical properties [1]					
Tensile strength	R_m	MPa	480	550	380
0.2 yield strength	$R_{p0.2}$	MPa	380	460	210
Elongation at fracture	A_5	%	8	5	10
Elastic modulus	E	GPa	160 – 180	160 – 180	130 – 150
Brinell hardness	BHN		190 – 240	200 – 250	130 – 170
at 780 °C [2]					
Tensile strength	R_m	MPa	70	70	130
0.2 yield strength	$R_{p0.2}$	MPa	35	35	90
Elastic modulus	E	GPa	30	30	100
Technological properties					
Usage temperature		°C	< 700	< 700	< 900
Machinability			Average	Average	Good
Wear resistance			Good	Good	Average
Induction or flame-hardening capacity			-	-	-
Nitriding capacity			-	-	-
Weldability			Only weldable using special electrodes		
Physical properties					
Density	ρ	kg/dm³	6.8 – 7.0	6.8 – 7.0	7.45
Thermal conductivity	λ	W/(K*m)	22 – 26 (at 100 °C) 25 – 30 (at 400 °C)	22 – 26 (at 100 °C) 25 – 30 (at 400 °C)	12.6 (at 100 °C) -
Thermal expansion coefficient	α up to 200 °C	10^{-6}/K	11 – 13	11 – 13	12.9
			Special materials or grades not listed available on request		

[1] *The mechanical properties of cast iron with spheroidal graphite in integrally cast Y-shaped test specimens (minimum values)*

[2] *Literature values*