

consistence of blooms by DIN EN 1676

	alloy name	% Cr	% Mn	% Zn	% Si	% Cu	% Ni	% Fe	% Mg	% Pb	% Sn	% Ti
226 D	EN AB-46000 EN AB-ALSi9Cu3(Fe)	0,15	0,55	1,20	8,00 - 11,00	2,00 - 4,00	0,55	0,60 - 1,10	0,15 - 0,55	0,35	0,25	0,20
230 D	EN AB-44300 EN AB-ALSi12(Fe)	-	0,55	0,15	10,50 - 13,50	0,08	-	0,45 - 0,90	-	-	-	0,15
231 D	EN AB-47100 EN AB-ALSi12Cu1(Fe)	0,10	0,55	0,55	10,50 - 13,50	0,70 - 1,20	0,30	0,60 - 1,10	0,35	0,20	0,10	0,15

consistence of die-casting parts by DIN EN 1706

	alloy name	% Cr	% Mn	% Zn	% Si	rigidity modulus kN/mm ²	% Ni	impact strength J	% Mg	% Pb	% Sn	% Ti
226 D	EN AC-46000 EN AC-ALSi9Cu3(Fe)	0,15	0,55	1,20	8,00 - 11,00	2,00 - 4,00	0,55	1,30	0,05 - 0,55	0,35	0,25	0,25
230 D	EN AC-44300 EN AC-ALSi12(Fe)	-	0,55	0,15	10,50 - 13,50	0,20	-	1,00	-	-	-	0,15
231 D	EN AC-47100 EN AC-ALSi12Cu1(Fe)	0,10	0,55	0,55	10,50 - 13,50	0,70 - 1,20	0,30	1,30	0,35	0,20	0,10	0,20

characteristic mechanical attributes at 23° C

	Tensile strength N/mm ²	0,2% yield strength N/mm ²	elongation at rupture %	modulus of elasticity kN/mm ²	Brinell hardness HBS 1/5
226D	240	140	<1	76	80
230 D	240	130	1	75	60
231 D	240	140	1	75	70

characteristic physical attributes

	Density g/cm ³	therm. Linear expansion coefficient 10 ⁻⁶ /K	thermal conductivity W/m*K	electr. conductivity MS/m	corrosion resistance	weldability	polishing
226D	2,76	21	110 - 120	13 - 17	D	F	C
230 D	2,68	20	130 - 160	16 - 22	C	D	D
231 D	2,70	20	120 - 150	15 - 20	C	F	C

A=excellently, B=well, C=reasonably well, D=insufficiently, E=does not recommendably, F=unsuitably

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Consistence of blooms by DIN EN 1676

	Alloying name	% Al	% Mn (min)	% Zn (max)	% Si (max)	% Cu (max)	% Ni (max)	% Fe (max)	% others max %
AZ 91	MgAl9Zn1(A)	8,50 - 9,50	0,17	0,45 - 0,90	0,05	0,025	0,001	0,004	0,01
AM 50	MgAl5Mn	4,50 - 5,30	0,27	0,20	0,05	0,008	0,001	0,004	0,01

Consistence of die-casting parts by DIN EN 1706

	Alloying name	% Al	% Mn (min)	% Zn (max)	% Si (max)	% Cu (max)	% Ni (max)	% Fe (max)	% others max %
AZ 91	MgAl9Zn1(A)	8,30 - 9,70	0,10	0,35 - 1,00	0,10	0,03	0,002	0,005	0,01
AM 50	MgAl5Mn	4,40 - 5,50	0,10	0,20	0,10	0,01	0,002	0,005	0,01

Zusammensetzung bei Druckgussteilen nach DIN EN 1706

	Alloying name	tensile strength /mm ²	0,2 % yield strength	compressive strength N/mm ²	elongation at rupture	modulus of elasticity kN/mm ²	rigidity modulus kN/mm ²	Brinell hardness HBS 1/5	impact strength J
AZ 91	MgAl9Zn1(A)	200 - 260	140 - 170	(145)	1 - 6	45	17	65 - 85	6
AM 50	MgAl5Mn	180 - 230	110 - 130	(113)	5 - 15	45	ng (17)	50 - 65	18

Charakteristische physikalische Eigenschaften

charact. mech. Attributes at 23°	density g/cm ³	liquid system temperature °C	melting temperature °C	thermal extension µm/mk	glaze heat kj/kg	spez. heat capacity kj/kg*K	thermal conductivity W/K*m	electr. conductivity MS/m	
AZ 91	MgAl9Zn1(A)	1,81	598	420 - 435	26	370	1,02	51	6,60
AM 50	MgAl5Mn	1,77	620	420 - 435	26	370	1,02	65	9,10

The term in brackets shows the attributes of sperate casted test bars; ng= not measured

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