I N T E R S T A T E S T A N D A R D

ALUMINIUM CASTING ALLOYS

SPECIFICATIONS

GOST 1583-93

OFFICIAL EDITION

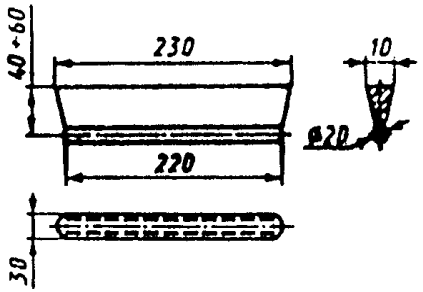
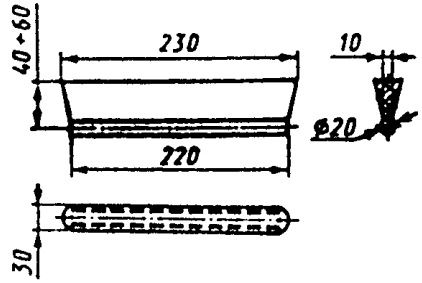
GOVERNMENT BODY FOR STANDARDIZATION, METROLOGY & SPECIFICATIONS
MOSCOW

SUPERSEDES GOST 1583-89

Group B51

CORRECTIONS, INTRODUCED IN THE STANDARD

For GOST 1583 - 93 Aluminium casting alloys. Specification

In which place	Printed as	Should be
Section 1. Second para	Requirements 4.3.5 and 4.3.6 of present standard is mandatory	Requirements 3.3, 4.3.5 and 4.3.6 of present standard is mandatory.
Point 5.2.4 Fig. 4		
Appendix Б. Point Б.1.4.	For a period of 10 - 15 days 2 - 5 days	For a period of 10-50 seconds 2-5 seconds

(ИУС No.6 1998)

Group B51

For GOST 1583 - 93 Aluminium casting alloys. Specification.

In which place	Printed as	Should be
Point 3.1 Table 1. Graph of « alloy grade». For alloy group III.		
Appendix B. Table B.1. Graph « alloy grade».	АМ 4.5Кл (ВАЛ10	АМ 4.5Кд (ВАЛ 10)

(ИУС No. 3 2000)

Contents

I N T E R S T A T E S T A N D A R D

ALUMINIUM CASTING ALLOYS

Specifications

Introduction date 1997 – 01 - 01

1. AREA OF APPLICATION

Present standard covers to aluminium casting alloys in the form of ingots (stock) and in the form of castings, manufactured for the national economy (industrial needs) and for export.

Requirements 4.3.5. and 4.3.6. of present standard are mandatory.

Terms used in the standard and their definition is given Appendix A.

2. STANDARD REFERENCE

Reference from the following standards are taken in this standard:

GOST 12.1.005 - 88 ССБТ. General sanitation-hygiene requirements of the air in working zone.

GOST 12.1.007 - 76 ССБТ. Harmful substances. Classification and general requirements for safety.

GOST 12.2.009 - 80 ССБТ. Metal processing machines. General Requirements for safety.

GOST 12.4.013 - 85 Е ССБТ. Safety goggles. General specifications.

GOST 12.4.021- 75 ССБТ. Ventilation system. General specifications.

GOST 1497 - 84. Metals. Methods for tensile testing.

GOST 1762.0 - 71. Silumin (alloy) in ingots. General requirements for analyzing method.

GOST 1762.1 - 71. Silumin in ingots. Methods of silicon estimation.

GOST 1762.2 - 71. Silumin in ingots. Methods for iron estimation.

GOST 1762.3 - 71. Silumin in ingots. Methods for calcium estimation.

GOST 1762.4 - 71. Silumin in ingots. Methods for Titanium estimation.

GOST 1762.5-71. Silumin in ingots. Methods for Manganese estimation.

GOST 1762.6 - 71. Silumin in ingots. Methods for Copper estimation.

GOST 1762.7 - 71. Silumin in ingots. Methods for Zinc estimation.

GOST 7727 - 81. Aluminium alloys. Spectrum analysis methods.

GOST 9012 - 59. Metals. Brinell method for hardness testing.

GOST 11739.1 - 90 Aluminium alloy castings & deformation alloys. Methods for estimation of aluminium oxide.

GOST 11739.2 - 90 Aluminium alloy castings & deformation alloys. Methods for estimation of Boron.

GOST 11739.3 - 82 Aluminium alloy castings & deformation alloys. Methods for estimation of Beryllium

GOST 11739.4 - 90 Aluminium alloy castings & deformation alloys. Methods for estimation of Bismuth.

GOST 11739.5 - 90 Aluminium alloy castings & deformation alloys. Methods for estimation of Vanadium.

GOST 11739.6 - 82 Aluminium alloy castings & deformation alloys. Methods for estimation of Iron.

GOST 11739.7 - 82 Aluminium alloy castings & deformation alloys. Methods for estimation of Silicon.

GOST 11739.8 –90 Aluminium alloy castings & deformation alloys. Methods for estimation of Potassium.

GOST 11739.9 - 90 Aluminium alloy castings & deformation alloys. Methods for estimation of Cadmium.

GOST 11739.10 - 90 Aluminium alloy castings & deformation alloys. Methods for estimation of Lithium.

GOST 11739.11 - 82 Aluminium alloy castings & deformation alloys. Methods for estimation of Magnesium.

GOST 11739.12 - 82 Aluminium alloy castings & deformation alloys. Methods for estimation of Manganese.

GOST 11739.13 - 82 Aluminium alloy castings & deformation alloys. Methods for estimation of Copper.

GOST 11739.14 - 82 Aluminium alloy castings & deformation alloys. Methods for estimation of Arsenic.

GOST 11739.15 - 82 Aluminium alloy castings & deformation alloys. Methods for estimation of Sodium.

GOST 11739.16 - 90 Aluminium alloy castings & deformation alloys. Methods for estimation of Nickel.

GOST 11739.17 - 90 Aluminium alloy castings & deformation alloys. Methods for estimation of Tin.

GOST 11739.18 - 90 Aluminium alloy castings & deformation alloys. Methods for estimation of Lead.

GOST 11739.19 - 90 Aluminium alloy castings & deformation alloys. Methods for estimation of Antimony.

GOST 11739.20 - 82 Aluminium alloy castings & deformation alloys. Methods for estimation of Titanium.

GOST 11739.21 - 90 Aluminium alloy castings & deformation alloys. Methods for estimation of Chromium.

GOST 11739.22 - 90 Aluminium alloy castings & deformation alloys. Methods for estimation of rare earth elements and yttrium.

GOST 11739.23 - 82 Aluminium alloy castings & deformation alloys. Methods for estimation of zirconium.

GOST 11739.24 - 82 Aluminium alloy castings & deformation alloys. Methods for estimation of Zinc.

GOST 13843 - 78 E Aluminium rolled wires. Technical specifications.

GOST 14192 - 77 Marking of cargo loads.

GOST 21132.0 – 75 Aluminium and aluminium alloys. Methods for estimation of Hydrogen in liquid metal.

GOST 21132.1 - 81 Aluminium and aluminium alloys. Methods for estimation of content of Hydrogen in Hard metal.

GOST 21399 - 75 Packs (stacking racks) for transportation of non-ferrous ingots, cathodes and bars. General requirements.

GOST 21650 - 76 Fastening means of single–piece loads in transporting packs. General requirements.

GOST 24231 - 80 Non-ferrous metals and alloys. General requirements for selection and sample preparation for chemical analysis.

GOST 24597 - 81 Packs for single–piece loads. General parameters and dimensions.

GOST 25086 - 87 Non-ferrous metals and their alloys. General requirement for methods of analysis.

3. GRADES

3.1. Grades and chemical composition of aluminium casting alloys must be in accordance as given in table 1.

3.2. Silimun in ingots is manufactured with the following chemical composition.

АК 12ч (СИЛ-1) – Silicon 10-13%, Aluminium-base, impurities % not more than: Iron – 0.50, manganese – 0.40, Calcium – 0.08, Titanium – 0.13, Copper – 0.02, Zinc - 0.06.

АК 12пч (СИЛ-0) – Silicon 10-13%, Aluminium-base, impurities % maximum: Iron – 0.35, manganese – 0.08, Calcium – 0.08, Titanium – 0.08, Copper – 0.02, Zinc - 0.06.

АК 12оч (СИЛ-00) – Silicon 10-13%, Aluminium-base, impurities % maximum: Iron – 0.2, manganese – 0.03, Calcium – 0.04, Titanium – 0.03, Copper – 0.02, Zinc - 0.04.

АК 12ж (СИЛ-2) – Silicon 10-13%, Aluminium-base, impurities % maximum: Iron – 0.7, manganese – 0.5, Calcium – 0.2, Titanium – 0.2, Copper – 0.03, Zinc - 0.08.

As per agreement between the customer and the manufacturer, for grades AK 12ж (СИЛ-2) Iron content up to 0.9%, Manganese - up to 0.8%, Titanium – up to 0.25% are permitted.

3.3. For manufacturing parts for food industry, use alloys AK7, AK5M2, AK 9, AK12. Usage of other grades of alloys for manufacturing parts and equipment meant for contact with food products and mediums, each individual case must be approved by public health care department.

In aluminium alloys, meant for manufacturing of parts for food industry, Fraction of total mass of Lead must be maximum 0.15%, Arsenic – maximum 0.015%, Zinc – maximum 0.3%, Beryllium – maximum 0.0005%.

4. ALLOYS IN INGOTS (METAL STOCK)

4.1. Specifications

4.1.1 Alloys must be prepared in accordance with requirements of the present standard as per the technological manual, approved in established order.

4.1.2 Alloys are manufactured in form of ingots of mass up to 20 kg, as per the agreement with the customer – more than 200 kg and in the form of melt.

Table 1

Alloy group	Grade of alloy	Product form	Fraction of total mass, %									
			Main components							Impurities, maximum		
			Magnesium	Silicon	Manga-nese	Copper	Titaniu m	Nickel	Aluminiu m	Iron		
										З, В	К	Д
I (Alloys based on system of. Aluminium - silicon-magnesium)	АК12 (АЛ2)	Ingot / Casting	-	10 - 13	-	-	-	-	Base	0.7 / 0.7	0.7 / 1.0	0.7 / 1.5
	АК13 (АК13)	Ingot / Casting	0.01 - 0.2 / 0.1 - 0.2	11.0 - 13.5 / 11.0 - 13.5	0.01 - 0.5 / 0.1 - 0.5	-	-	-	Base	0.9 / 0.9	0.9 / 1.0	0.9 / 1.1
	АК9 (АК9)	Ingot / Casting	0.25 - 0.45 / 0.2 - 0.4	8 - 11	0.2 - 0.5	-	-	-	Base	0.8 / 0.9	0.8 / 1.2	0.8 / 1.3
	АК9с (АК9с)	Ingot / Casting	0.2 - 0.35	8 - 10.5	0.2 - 0.5	-	-	-	Base	0.7 / 0.7	0.7 / 0.9	0.7 / 1.0
	АК9ч (АЛ4)	Ingot / Casting	0.2 - 0.35 / 0.17 - 0.30	8 - 10.5	0.2 - 0.5	-	-	-	Base	0.5 / 0.6	0.5 / 0.9	0.5 / 1.0
	АК9пч (АЛ4-1)	Ingot / Casting	0.25 - 0.35 / 0.23 - 0.30	9 - 10.5	0.2 - 0.35	-	0.08 / 0.15	-	Base	0.3	0.3	0.3

Contd., Table 1

Alloy group	Grade of alloy	Product form	Fraction of total mass, %									
			Impurities max.									
			Manganese	Copper	Zinc	Nickel	Lead	Tin	Silicon	Sum of impurities		
										З, В	К	Д
1 (Alloys based on system of. Aluminium silicon magnesium)	АК12 (АЛ2)	Ingot / Casting	0.5	0.60	0.30	Magnesium 0.10	Titanium 0.10	-	Zirconium 0.10	2.1 / 2.1	2.1 / 2.2	2.1 / 2.7
	АК13 (АК13)	Ingot / Casting	-	0.10	0.15	-	Titanium 0.20	-	-	1.35 / 1.35	1.35 / 1.45	1.35 / 1.55
	АК9 (АК9)	Ingot / Casting	-	1.0	0.5	0.3	-	-	-	2.4 / 2.6	2.4 / 2.8	2.4 / 3.0
	АК9с (АК9с)	Ingot / Casting	-	0.5	0.3	0.1	0.05	0.01	-	1.35 / 1.35	1.35 / 1.7	1.35 / 1.8
	АК9ч (АЛ4)	Ingot / Casting	Zirconium+ titanium 0.12 / 0.15	0.3 / 0.3	0.3 / 0.3	0.10	0.03 / 0.05	0.008 / 0.01	Beryllium 0.10	1.1 / 1.1	1.1 / 1.4	1.1 / 1.5
	АК9пч (АЛ4-1)	Ingot / Casting	Boron 0.1	0.10	0.30	Beryllium 0.1	0.03	0.005	Zirconium 0.15	0.6	0.6	0.6

Contd, table 1

Alloy group	Grade of alloy	Product form	Fraction of total mass, %									
			Main components							Impurities, maximum		
			Magnesium	Silicon	Manga-nese	Copper	Titaniu m	Nickel	Aluminiu m	Iron		
										З, В	К	Д
I (Alloys based on system of. Aluminium - silicon - magnesium)	АК8л (АЛ34)	Ingot / Casting	0.40 - 0.60 / 0.35 - 0.55	6.5 - 8.5	-	-	0.1 / 0.3	Beryllium 0.15-0.4	Base	0.5 / 0.6	0.5 / 0.6	-
	АК7 (АК7)	Ingot / Casting	0.2 - 0.55 / 0.2 - 0.5	6.0 - 8.0	0.2 - 0.6	-	-	-	Base	1.0 / 1.1	1.0 / 1.2	1.0 / 1.3
	АК7ч (АЛ9)	Ingot / Casting	0.25 - 0.45 / 0.2 - 0.4	6.0 - 8.0	-	-	-	-	Base	0.5 / 0.6	0.5 / 1.0	0.5 / 1.5
	АК7пч (АЛ91)	Ingot / Casting	0.25 - 0.45 / 0.25 - 0.40	7.0 - 8.0	-	-	0.08 / 0.15	-	Base	0.3	0.4	0.5
	АК10Су (АК10Су)	Ingot / Casting	0.15 - 0.55 / 0.1 - 0.5	9 - 11	0.2 - 0.6	-	-	Antimony 0.1 - 0.25	Base	-	-	1.1 / 1.2

Contd., Table 1

Alloy group	Grade of alloy	Product form	Fraction of total mass, %									
			Impurities max.									
			Manganese	Copper	Zinc	Nickel	Lead	Tin	Silicon	Sum of impurities		
										З, В	К	Д
I (Alloys based on system of. Aluminium silicon magnesium)	АК8л (АЛ34)	Ingot / Casting	0.10	0.3	0.30	-	Boron 0.10	Zirconium 0.20	-	0.9 / 1.0	0.9 / 1.0	-
	АК7 (АК7)	Ingot / Casting	-	1.5	0.5	0.3	-	-	-	3.0 / 3.1	3.0 / 3.2	3.0 / 3.3
	АК7ч (АЛ9)	Ingot / Casting	0.5	0.20	0.30	Titanium +zirconium 0.15	0.05	0.01	Beryllium 0.10	1.0 / 1.1	1.0 / 1.5	1.0 / 2.0
	АК7пч (АЛ91)	Ingot / Casting	0.10	0.10	0.20	Boron 0.1 Zirconium 0.15	0.03	0.005	Beryllium 0.10	0.6	0.7	0.8
	АК10Су (АК10Су)	Ingot / Casting	-	1.8	1.8	0.5	-	-	-	-	-	4.6 / 4.8

Contd., Table 1

Alloy group	Grade of alloy	Product form	Fraction of total mass, %									
			Main components							Impurities, maximum		
										Iron		
			Magnesium	Silicon	Manga-nese	Copper	Titanium	Nickel	Aluminium	З, В	К	Д
II (Alloys based on system of. Aluminium silicon Copper)	АК5М (АЛ5)	Ingot	0.40-0.65	4.5 - 5.5	-	1.0 - 1.5	-	-	Base	0.6	0.6	0.6
		Casting	0.35-0.6							0.6	1.0	1.5
	АК5Мч (АЛ5-1)	Ingot	0.45-0.60	4.5 - 5.5	-	1.0 - 1.5	0.08 - 0.15	-	Base	0.3	0.4	0.5
		Casting	0.40-0.55									
	АК5М2 (АК5М2)	Ingot	0.2-0.85	4.0 - 6.0	0.2 - 0.8	1.5 - 3.5	0.05 - 0.20	-	Base	1.0	1.0	1.0
		Casting	0.2-0.8							1.0	1.3	1.3
	АК5М7 (АК5М7)	Ingot	0.3-0.6	4.5 - 6.5	-	6.0 - 8.0	-	-	Base	1.1	1.1	1.1
		Casting	0.2-0.5							1.2	1.2	1.3
	АК6М2 (АК6М2)	Ingot	0.35-0.50	5.5 - 6.5	-	1.8 - 2.3	0.1 - 0.2	-	Base	0.5	0.5	-
		Casting	0.30-0.45							0.6	0.6	
	АК8М (АЛ32)	Ingot	0.35-0.55	7.5 - 9	0.3 - 0.5	1.0 - 1.5	0.1 - 0.3	-	Base	0.6	0.6	0.6
		Casting	0.2-0.5							0.7	0.8	0.9

Contd., Table 1

Alloy group	Grade of alloy	Product form	Fraction of total mass, %									
			Impurities, max.									
			Manganese	Copper	Zinc	Nickel	Lead	Tin	Silicon	Sum of impurities		
										З, В	К	Д
II (Alloys based on system of. Aluminium silicon Copper)	АК5М (АЛ5)	Ingot / Casting	0.5	-	0.3	Titanium +zirconium 0.15	-	0.01	Beryllium 0.1	0.9 / 1.0	0.9 / 1.3	0.9 / 1.7
	АК5Мч (АЛ5-1)	Ingot / Casting	0.1	-	0.3	Zirconium 0.15	Boron 0.1	0.01	-	0.6	0.7	0.8
	АК5М2 (АК5М2)	Ingot / Casting	-	-	1.5	0.5	-	-	-	2.8 / 2.8	2.8 / 3.0	2.8 / 3.0
	АК5М7 (АК5М7)	Ingot / Casting	0.5	-	0.6	0.5	Lead + Tin + Antimony 0.3			2.6 / 2.7	2.6 / 2.7	2.6 / 3.0
	АК6М2 (АК6М2)	Ingot / Casting	0.1	-	0.06	0.05	-	-	-	0.7	0.7	-
	АК8М (АЛ32)	Ingot / Casting	-	-	0.30	-	-	-	Zirconium 0.1	0.8 / 0.9	0.8 / 1.0	0.8 / 1.1

Contd., Table 1

Alloy group	Grade of alloy	Product form	Fraction of total mass, %									
			Main components							Impurities, maximum		
										Iron		
			Magnesium	Silicon	Manga-nese	Copper	Titanium	Nickel	Aluminium	З, В	К	Д
II (Alloys based on system of. Aluminium silicon Copper)	АК5М4 (АК5М4)	Ingot	0.25 - 0.55	3.5 - 6.0	0.2 - 0.6	3.0 - 5.0	0.05 - 0.20	-	Base	1.0	1.0	1.0
		Casting	0.2 - 0.5							1.0	1.2	1.4
	АК8М3 (АК8М)	Ingot	-	7.5 - 10	-	2.0 - 4.5	-	-	Base	-	-	1.3
		Casting										
	АК8М3ч (ВАЛ8)	Ingot	0.25 - 0.50	7.0 - 8.5	Zinc 0.5 - 1.0	2.5 - 3.5	0.1 - 0.25	Boron 0.005-0.1; Beryllium 0.05 -0.25	Base	0.4	0.4	0.4
		Casting	0.2 - 0.45									
	АК9М2 (АК9М2)	Ingot	0.25 - 0.85	7.5 - 10	0.1 - 0.4	0.5 - 2.0	0.05 - 0.20	-	Base	-	0.9	0.9
		Casting	0.2 - 0.8								1.0	1.2

Contd., Table 1

Alloy group	Grade of alloy	Product form	Fraction of total mass, %									
			Impurities, max.									
			Manganese	Copper	Zinc	Nickel	Lead	Tin	Silicon	Sum of impurities		
										З, В	К	Д
II (Alloys based on system of. Aluminium silicon Copper)	АК5М4 (Ak5M4)	Ingot / Casting	-	-	1.5	0.5	-	-	-	2.8 / 2.8	2.8 / 3.0	2.8 / 3.2
	АК8М3 (АК8М)	Ingot / Casting	0.5	Magnesium 0.45	1.2	0.5	Zinc + Lead 0.3	-	-	-	-	4.1 / 4.2
	АК8М3ч (ВАЛ8)	Ingot / Casting	Cadmium 0.15	-	Zirconium 0.15	-	-	-	-	0.6	0.6	0.6
	АК9М2 (АК9М)	Ingot / Casting	-	-	1.2	0.5	Zinc + Lead 0.15	-	Chromium 0.1	-	2.5 / 2.6	2.5 / 2.8

Contd. Table 1

Alloy group	Grade of alloy	Product form	Fraction of total mass, %									
			Main components							Impurities, maximum		
										Iron		
			Magnesium	Silicon	Manga-nese	Copper	Titanium	Nickel	Alumin ium	З, В	К	Д
II (Alloys based on system of. Aluminium silicon Copper)	АК12М2, (АК11М2, АК12М2, АК12М2р)	Ingot / Casting	-	11 - 13	-	1.8 - 2.5	Iron 0.6 - 0.9 / 0.6 - 1.0	-	Base	-	-	-
	АК12ММгН (АЛ30)	Ingot / Casting	0.85 - 1.35 / 0.8 - 1.3	11 - 13	-	0.8 - 1.5	-	0.8 - 1.3	Base	-	0.6 / 0.7	-
	АК12М2МгН (АЛ25)	Ingot / Casting	0.85 - 1.35 / 0.8 – 1.3	11 - 13	0.3 - 0.6	1.5 - 3.0	0.05-0.20	0.8 - 1.3	Base	-	0.7 / 0.8	-
	АК21М2, 5Н2.5 (ВКЖЛС-2)	Ingot / Casting	0.3 - 0.6 / 0.2 - 0.5	20 - 22	0.2 - 0.4	2.2 - 3.0	0.1 - 0.3	2.2 - 2.8 Chromium 0.2 - 0.4	Base	-	0.5 / 0.9	-
III (Alloys based on system of. Aluminium Copper)	АМ5 (АЛ19)	Ingot / Casting	-	-	0.6 - 1.0	4.5 - 5.3	0.15 - 0.35	-	Base	0.15 / 0.20	0.15 / 0.30	-
	АМ4, 5Кл (ВАЛ10)	Ingot / Casting	-	-	0.35 - 0.8	4.5 - 5.1	0.15 - 0.35	Cadmium 0.07 - 0.25	Base	0.10 / 0.15	0.10 / 0.15	-

Contd., Table 1

Alloy group	Grade of alloy	Product form	Fraction of total mass, %									
			Impurities max.									
			Manganese	Copper	Zinc	Nickel	Lead	Tin	Silicon	Sum of impurities		
										З, В	К	Д
II (Alloys based on system of. Aluminium silicon Copper)	АК12М2, (АК11М2, АК12М2, АК12М2р)	Ingot / Casting	0.5	Magnesium 0.20 / 0.15	0.8	0.3	0.15	0.1	Titanium 0.20	-	-	2.1 / 2.2
	АК12ММгН (АЛ30)	Ingot / Casting	Chromium 0.2	-	0.2	Manganese 0.2	0.05	0.01	Titanium 0.20	-	1.0 / 1.1	-
	АК12М2МгН (АЛ25)	Ingot / Casting	Chromium 0.2	-	0.5	-	0.10	0.02	-	-	1.2 / 1.3	-
	АК21М2, 5Н2,5 (ВКЖЛС-2)	Ingot / Casting	-	-	0.2	-	0.05	0.01	-	-	0.7 / 1.1	-
III (Alloys based on system of. Aluminium Copper)	АМ5 (АЛ19)	Ingot / Casting	Magnesium 0.05	-	0.20	0.10	Zirconium 0.20	-	0.30	0.9	0.9	-
	АМ4, 5Кл (ВАЛ10)	Ingot / Casting	Magnesium 0.05	-	0.1	-	Zirconium 0.20	-	0.20	0.60	0.60	-

Contd., Table 1

Alloy group	Grade of alloy	Product form	Fraction of total mass, %									
			Main components							Impurities, maximum		
			Magnesium	Silicon	Manganese	Copper	Titanium	Nickel	Aluminium	Iron		
										З, В	К	Д
IV (Alloys based on system of. Aluminium Magnesium)	АМг4К1.5М (АМг4К1.5М1)	Ingot / Casting	4.5-5.2	1.3-1.7	0.6-0.9	0.7-1.0	0.10 -0.25	Beryllium 0.002-0.004	Base	-	0.30 0.40	-
	АМг5Кц (АЛ13)	Ingot / Casting	4.5-5.5	0.8-1.3	0.1-0.4	-	-	-	Base	0.4 / 0.5	0.4 / 0.5	0.4 / 1.5
	АМг5М (АЛ28)	Ingot / Casting	4.8-6.3	-	0.4-1.0	-	0.05-0.15	-	Base	0.25 / 0.30	0.25 / 0.40	0.25 / 0.5
	АМг6Л (АЛ23)	Ingot / Casting	6.0-7.0	Zirconium 0.05-0.20	Beryllium 0.02-0.10	-	0.05-0.15	-	Base	0.20	0.20	-
	АМг6ЛЧ (АЛ23-1)	Ingot / Casting	6.0-7.0	Zirconium 0.05-0.20	Beryllium 0.02-0.10	-	0.05-0.15	-	Base	0.05	0.05	-
	АМг10 (АЛ27)	Ingot / Casting	9.5-10.5	Zirconium 0.05-0.20	Beryllium 0.05-0.15	-	0.05-0.15	-	Base	0.20	0.20	0.20

Contd., Table 1

Alloy group	Grade of alloy	Product form	Fraction of total mass, %									
			Impurities, max.									
			Manga-nese	Copper	Zinc	Nickel	Lead	Tin	Silicon	Sum of impurities		
										З, В	К	Д
IV (Alloys based on system of. Aluminium Magnesium)	АМг4К1.5М (АМг4К1.5М1)	Ingot / Casting	-	-	0.1	-	-	-	-	-	0.1 / 0.3	-
	АМг5КЦ (АЛ13)	Ingot / Casting	-	0.10	0.20	-	Zirconium 0.15	-	-	0.5 / 0.6	0.5 / 0.6	0.5 / 1.8
	АМг5М (АЛ28)	Ingot / Casting	-	0.30	-	-	Zirconium 0.10 -	-	0.30	0.4 / 0.5	0.4 / 0.6	0.4 / 0.7
	АМг6Л (АЛ23)	Ingot / Casting	0.10	0.15	0.10	-	-	-	0.20	0.50	0.50	-
	АМг6Лч (АЛ23-1)	Ingot / Casting	0.10	0.05	0.05	-	-	-	0.05	0.20	0.20	-
	АМг10 (АЛ27)	Ingot / Casting	0.10	0.15	0.10	-		-	0.20	0.50	0.50	0.50

Contd., Table 1

Alloy group	Grade of alloy	Product form	Fraction of total mass, %									
			Main components							Impurities, maximum		
			Magnesium	Silicon	Manga-nese	Copper	Titanium	Nickel	Aluminium	Iron		
										З, В	К	Д
IV (Alloys based on system of. Aluminium Magnesium)	АМг10ч (АЛ27-1)	Ingot / Casting	9.5-10.5	-	-	Beryllium 0.05-0.15	0.05-0.15	Zirconium 0.05-0.20	Base	0.05	0.05	0.05
	АМг11 (АЛ22)	Ingot / Casting	10.5-13.0	0.8-1.2	-	-	0.05-0.15	Beryllium 0.03-0.07	Base	0.4 / 0.5	0.9 / 1.0	1.1 / 1.2 Zirconium 0.2
	АМг7 (АЛ29)	Ingot / Casting	6.0-8.0	0.5-1.0	0.25-0.60	-	-	-	Base	-	-	0.8 / 0.9
V (Alloys based on system of Aluminium)	АК7Ц9 (АЛ11)	Ingot / Casting	0.15-0.35 / 0.1-0.3	6.0-8.0	Zinc 7.0-12.0	-	-	-	Base	0.7 / 0.7	0.7 / 1.2	0.7 / 1.5
	АК9Ц6 (АК9Ц6р)	Ingot / Casting	0.35-0.35 / 0.3-0.5	8-10	0.1-0.6	0.3-1.5	Zinc 5.0-7.0	Iron 0.3-1.0	Base	-	-	-
	АЦ4Мг (АЛ24)	Ingot / Casting	1.55-2.05 / 1.5-2.0	-	0.2-0.5	Zinc 3.5-4.5	0.1-0.2	-	Base	0.50	-	-

Contd., Table 1

Alloy group	Grade of alloy	Product form	Fraction of total mass, %									
			Impurities, max.									
			Manganese	Copper	Zinc	Nickel	Lead	Tin	Silicon	Sum of impurities		
										З, В	К	Д
IV (Alloys based on system of. Aluminium-Magnesium)	АМг10ч (АЛ27-1)	Ingot / Casting	0.1	0.05	0.005	-	-	-	0.05	0.20	0.20	0.20
	АМг11 (АЛ22)	Ingot / Casting	-	-	0.10	-	-	-	-	0.5 / 0.6	1.0 / 1.1	1.2 / 1.3
	АМг7 (АЛ29)	Ingot / Casting	-	0.1	0.2	Beryllium 0.01	-	-	-	-	-	0.9 / 1.0
V (Alloys based on system of. Aluminium-Other compo-nents)	АК7Ц9 (АЛ11)	Ingot / Casting	0.5	0.60	-	-	-	-	-	1.7 / 1.7	1.7 / 1.9	1.7 / 2.5
	АК9Ц6 (АК9Ц6р)	Ingot / Casting	-	-	-	0.3	Zinc + Tin 0.3	-	-	-	0.6	-
	АЦ4Мг (АЛ24)	Ingot / Casting	-	0.20	Beryllium 0.10	Zirconium 0.10	-	-	0.30	0.90	-	-