



PRODUCT CATALOGUE

2022

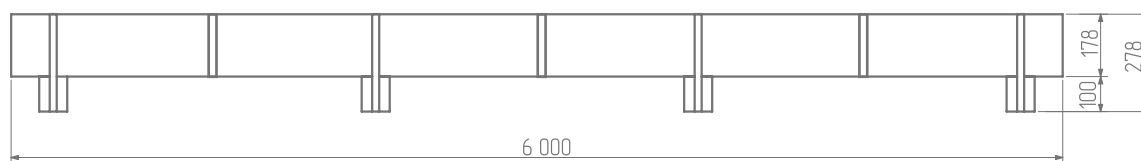
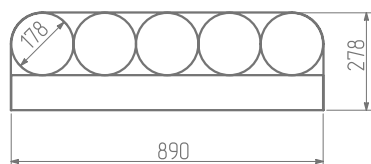
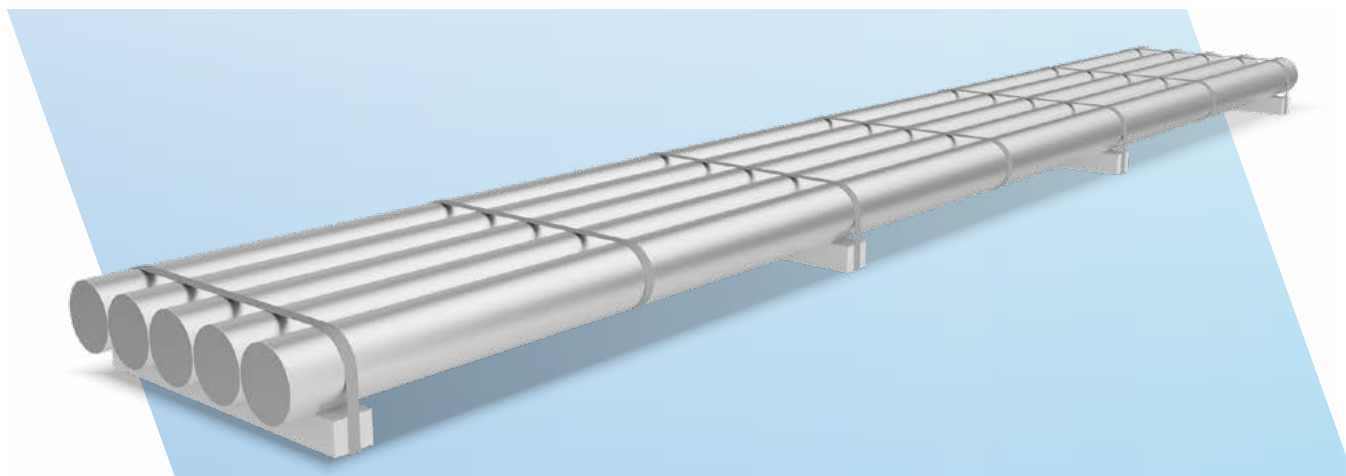
TOGETHER
TOWARDS
NET ZERO

AlloW



Extrusion Billets

Sample of Ø178 extrusion billet cut into 6 m length



The packaging depends on billet diameter and length. Typical Ø178 package

ALLOY SERIES: 6xxx (6005, 6005A, 6060, 6061, 6063, 6082, 6101, 6360, 6460, 6560), 1xxx (1070, 1070A, 1050)

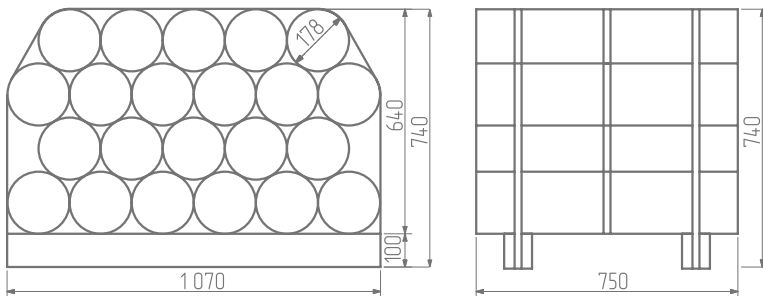
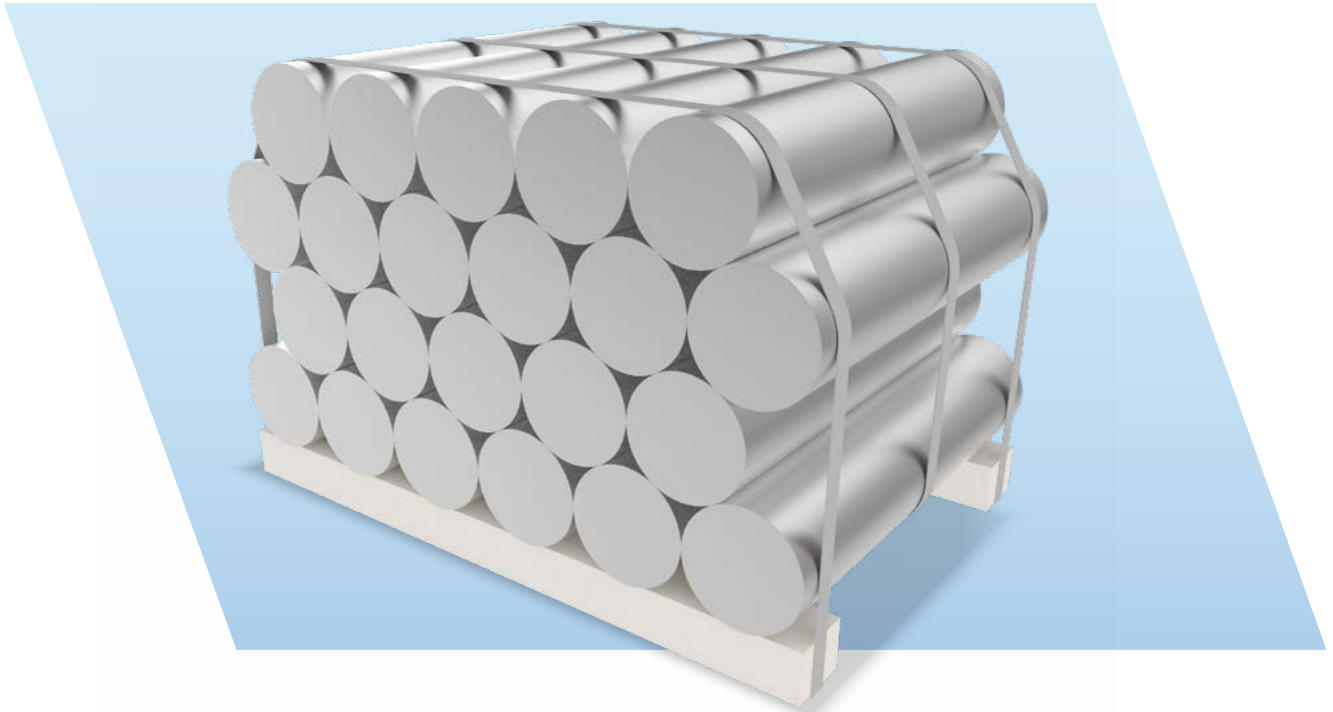
Cut to length or logs
6xxx homogenized
1xxx non-homogenized
US tested

Producer:
Kubal (Sweden), Novokuznetsk, Sayanogorsk,
Volgograd, Krasnoyarsk, Taishet.

Plant	Diameters, mm
Sayanogorsk	152, 178, 203, 215, 228, 254
Novokuznetsk	127, 145, 152, 155, 162, 178, 190, 203
Kubal	152, 178, 203, 228
Volgograd	127, 145, 152, 178, 190, 203
Krasnoyarsk	178, 203, 254, 279, 305, 356, 406, 457
Taishet	127, 152, 178, 203, 228, 254, 279, 305

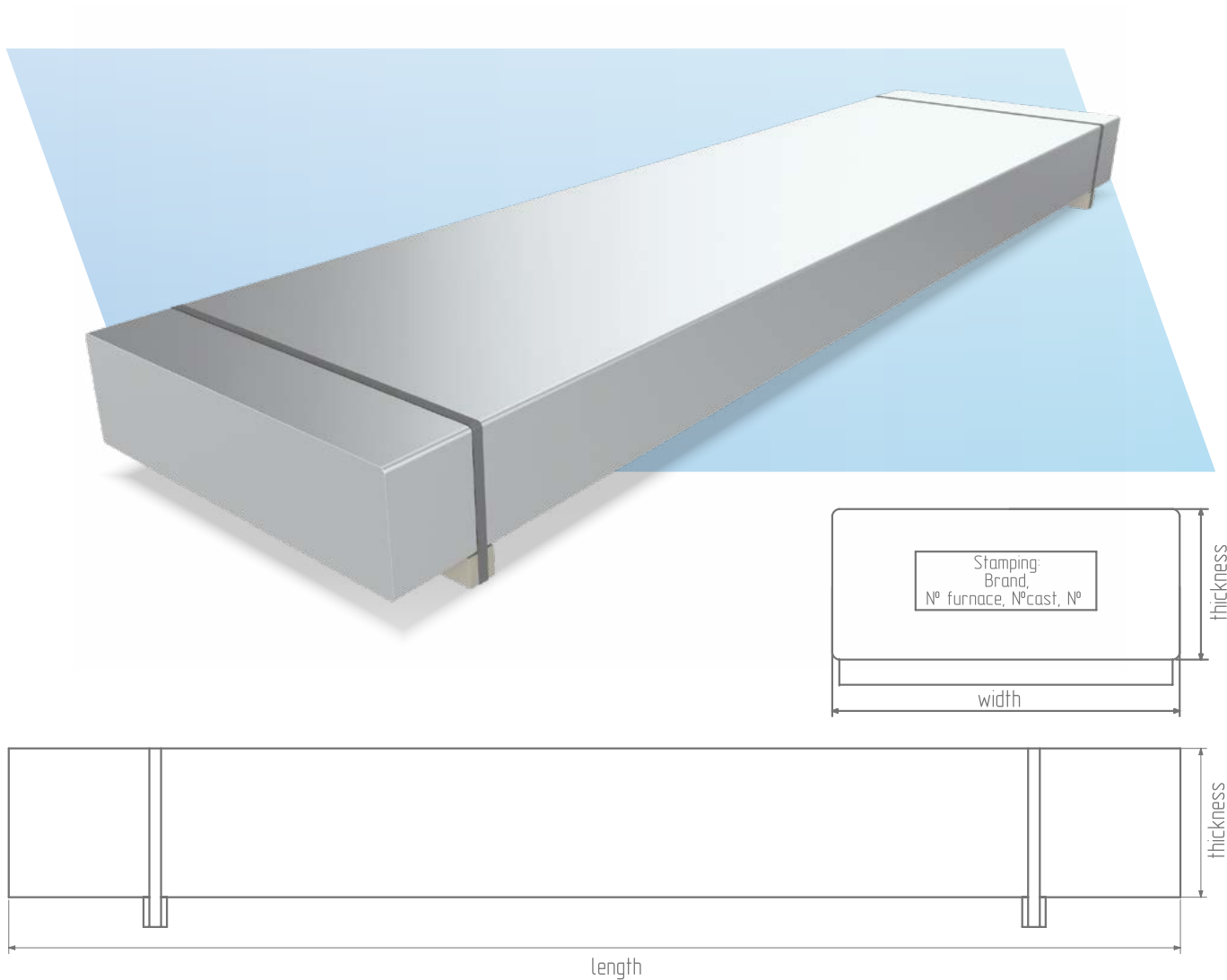
Extrusion Billets

Sample of $\varnothing 178$ extrusion billet cut into 0.75 m length



Typical package of $\varnothing 178$ billet cut into 750 mm length

Rolling Slabs



ALLOY SERIES: 1xxx, 3xxx, 4xxx, 5xxx, 6xxx, 8xxx

Double length casting capability:
up to 10' 500 mm of cast length

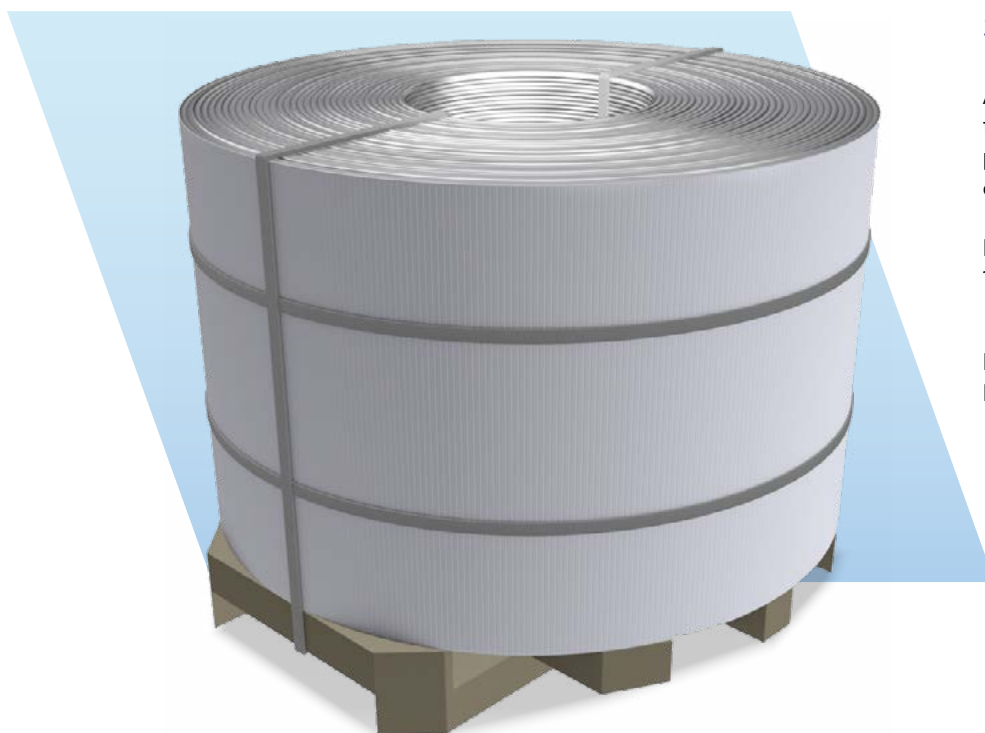
RUSAL smelters have got advanced casting moulds, enabling them to produce a wide range of slabs for rolling with a length of up to 11,500 mm, a width of 900–2,200 mm, and a thickness of 300–600 mm. They are produced from aluminium of the 1xxx, 3xxx, 5xxx, 6xxx, 8xxx series and A5 – A8 grades. These products are widely applied in the construction industry to produce numerous elements of buildings and structures across various industries. For example, in the automotive industry, they are used to manufacture large vehicle body parts, whilst in the consumer industry, produce canning products, cookware, foil and packaging.

Slabs are produced at 5 facilities. They are:
Bratsk (BRAZ), Russia
Krasnoyarsk (KRAZ), Russia
Sayanogorsk (SAZ), Russia
Taishet (TaAZ) Russia
Kubikenborg (KUBAL), Sweden
Rusal uses high quality equipment as: Wagstaff, Rusal ETC, LHS.

AVAILABLE MOULD SIZES

Plant	Cut length	Dimensions, mm						
Taishet	up to 9800 mm Wagstaff	560x1310	560x2050	600x2200	600x2500			
		405x1560	406x1050	406x1300	500x1150	500x1330	500x1630	500x1800
Bratsk	up to 6200 mm RUSAL mould	535x1315	540x1040	540x1540	560x1100	560x1230	560x1310	600x1150
		600x1330	600x1400	600x1630	540x1030	540x1530		
	up to 9100 mm Wagstaff	560x1100	560x1230	560x1310	560x1410	560x1520	600x1400	600x1630
		600x1750	600x2000	711x1346				
Krasnoyarsk	up to 6100 mm RUSAL mould	270x650	300x1025	400x1260	500x1150	500x1330	500x1560	560x1230
		560x1400	560x1510	560x1630	600x1260	600x1330	600x1560	
	Single length up to 5800 mm Double length up to 9100 mm Wagstaff	500x1800	560x1510	560x1520	560x1630	600x1200	600x1330	600x1450
		600x1550	600x1750	600x1850	600x2200			
Sayanogorsk	up to 7000 mm RUSAL mould	340x990	340x1270	405x1560	406x1050	406x1300	560x950	560x990
		560x1310	560x1410	560x1520	575x1100	600x1350	600x1450	600x1560
		600x1630	600x1750	600x2200				
	up to 6800 mm Wagstaff	500x2130	535x1670	560x1230	560x1310	560x1410	560x1520	560x1920
		560x2000	560x2050	600x1070	600x1350	600x1560	600x1630	600x1750
	600x2200							
Kubal	up to 4100 mm RUSAL mould	330x1300	330x1440	370x950	370x1050	370x1150	370x1250	370x1300
		370x1440	400x1300	400x1440	460x1440	500x1440	525x1440	550x1440
		600x1440						

Wire Rods



SPECIFICATION

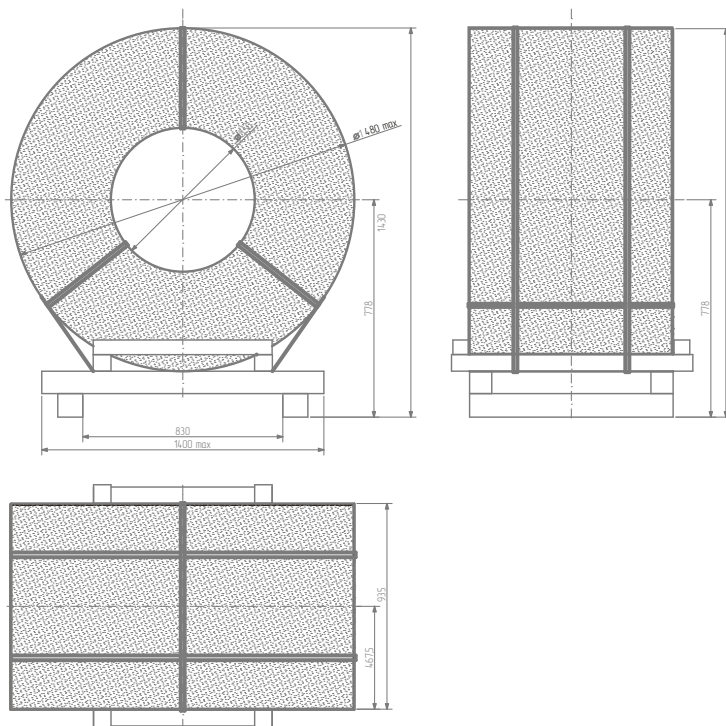
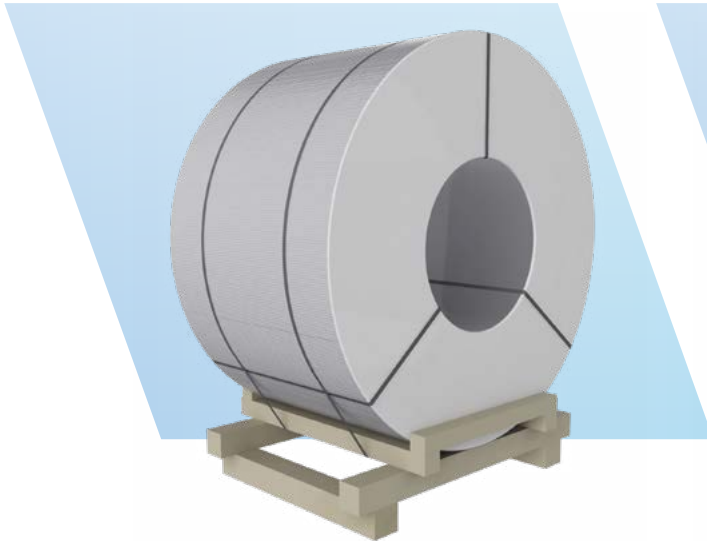
Applications – drawn wire for Electrical & mechanical purposes, CONFORM conductors, steel deoxidizing

Diameters 9.0 mm, 9.5 mm, 12 mm, 15 mm, 19 mm, 23 mm, 25 mm

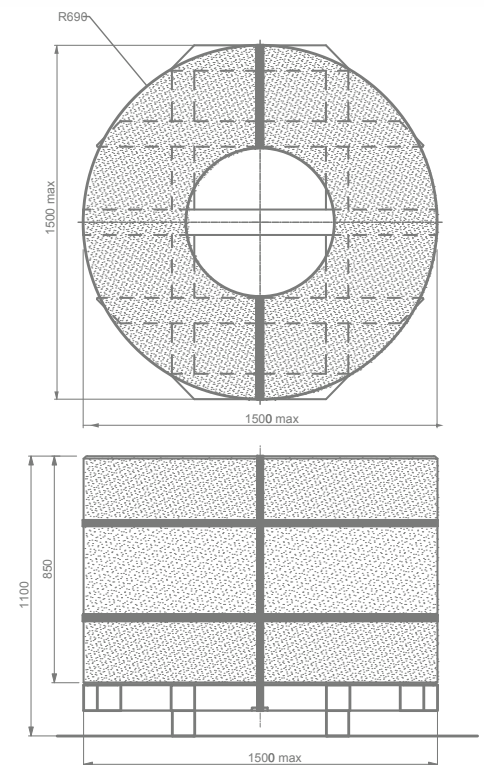
Producer:
Bratsk, Irkutsk, Kandalaksha

Grade	Tensile strength, MPa	Resistivity, Ohm*mm ² /m max	Conductivity, % IACS min
AW1080 - H11	80-95	0,02772	62.2%
AW1350AW/1370 - H11	80-95	0,02785	61.9%
AW1350AW/1370 - H12	95-110	0,02794	61.7%
AW1350AW/1370 - H13	105-120	0,02794	61.7%
AW1350AW/1370 - H14	115-130	0,0280	61.6%
AW6101-T1	150 min	0,03260	52.9%
AW8176 - F	60-150	0,02855	60.4%
AW8176 - O	60-150	0,02826	61.0%
TAL	110 min	0,02850	60.5%
ZTAL	120 min	0,02850	60.5%
DEOX	Various specs within 80-130 MPa	-	-
4043	100-140	-	-
3003	95-120	-	-
3103	95-115	-	-

Sample of wire rod Eye-to-the wall



Sample of wire rod Eye-to-the sky



Coil dimensions

Height, mm	
Outer diameter, mm	
Inner diameter, mm	
Coil net weight, kg	

KAZ

Height, mm	850
Outer diameter, mm	>1420
Inner diameter, mm	570/770
Coil net weight, kg	2000-3000

IRKAZ

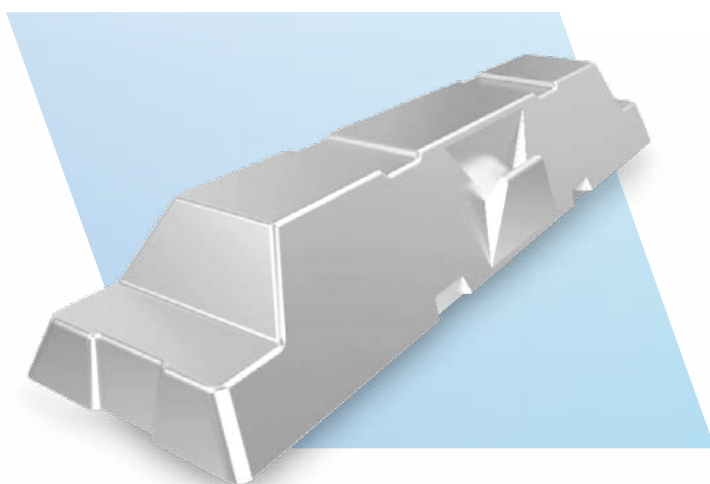
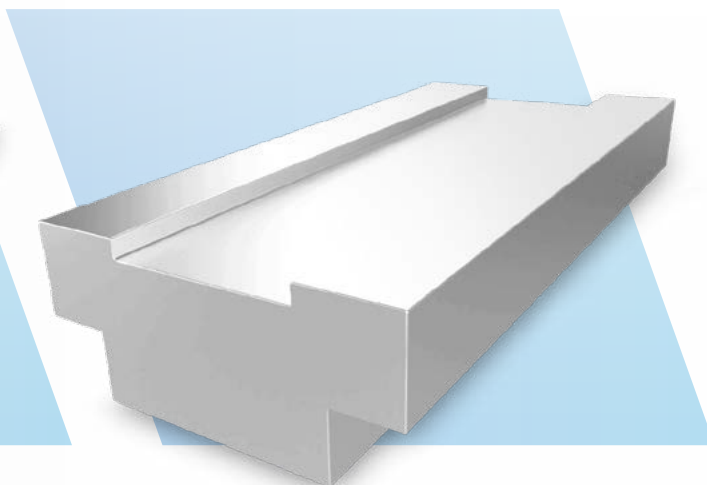
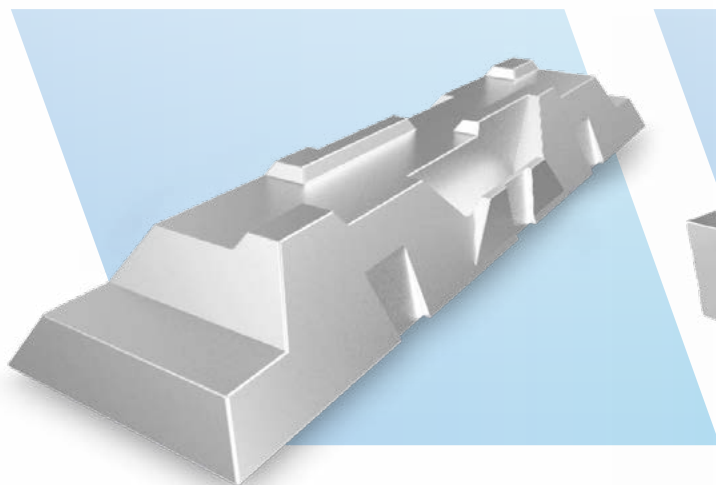
Height, mm	850
Outer diameter, mm	>1420
Inner diameter, mm	550
Coil net weight, kg	1850

BRAZ

Height, mm	900
Outer diameter, mm	>1350
Inner diameter, mm	550/780
Coil net weight, kg	1850

Primary Foundry Alloys

Samples of PFA

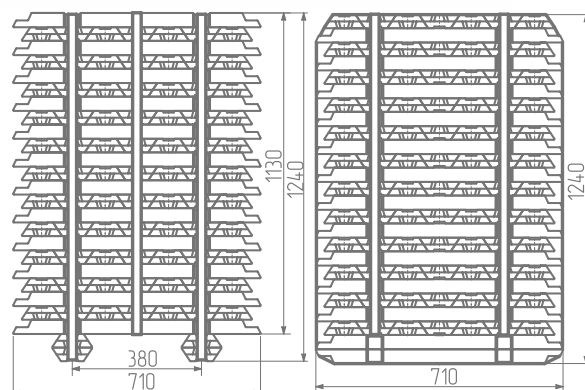
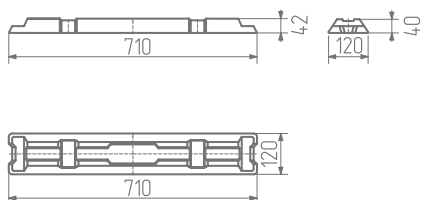
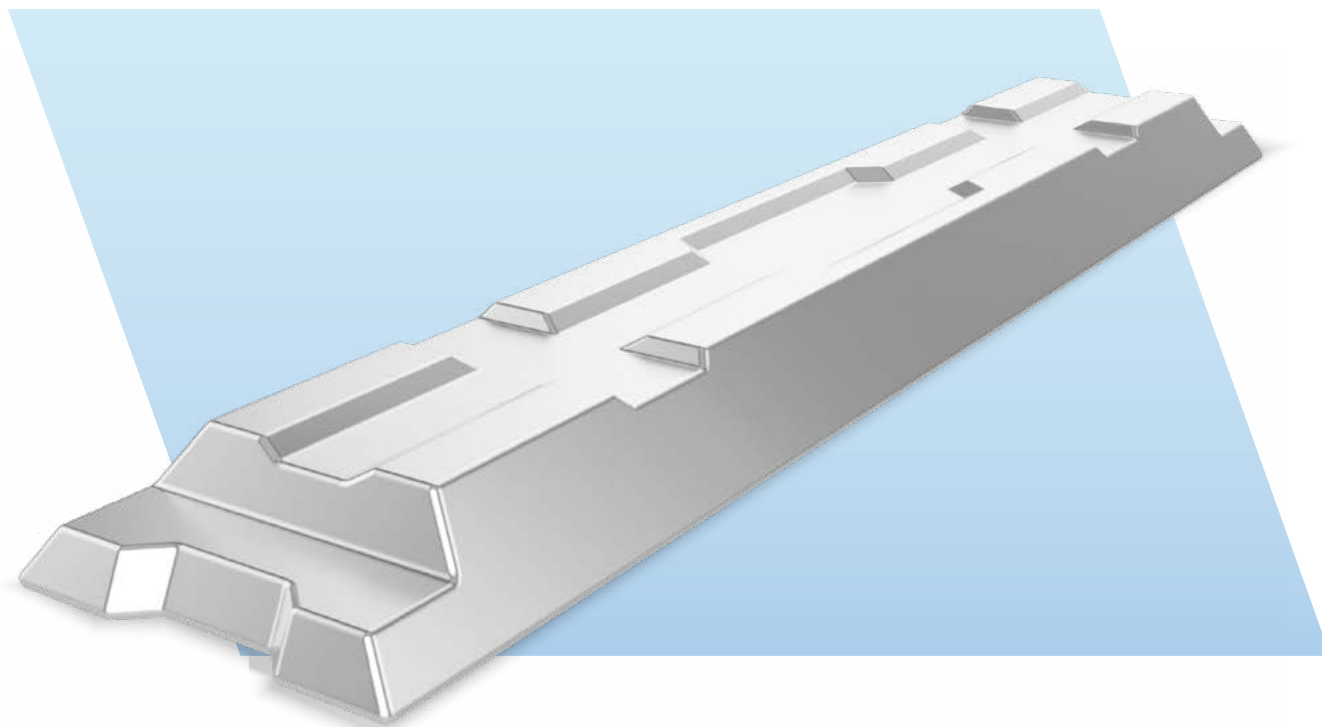


Producers:
Irkutsk,
Sayanogorsk,
Krasnoyarsk,
Novokuznetsk,
Khakas,
Boguchansk

Alloys	6-7 kg	10 kg	15 kg	16 kg	20 kg	Bar	T-bar	Sow/ Jumbo
AlSi7Mg	x	x	x	x	x	x	x	
AlSi11Mg	x	x	x	x	x	x		
AlSiCu	x	x	x	x			x	
AlSi3							x	
Piston	x		x				x	
AlSiMgMn	x	x	x	x				
AlSi10	x	x	x					x
special alloys	x		x					

Primary Foundry Alloys

6 KG INGOT



ALLOY SERIES: AISi7Mg, AISi11Mg, AISiCu, Piston, AISiMgMn, AISi10

Sr-modified/non-modified

Weight 6 kg +/- 1 kg

Full and half bundles are available

Regular bundle weight 1074 kg +/- 100 kg

Half bundle weight 570 kg +/- 50 kg

179 ingots in full bundle – Irkutsk

95 ingots in half bundle – Irkutsk

109 ingots in full bundle – Novokuznetsk

Packed in polyethylene wrapping

with 5 steel or plastic straps respectively

Highest Quality control standards (DI)

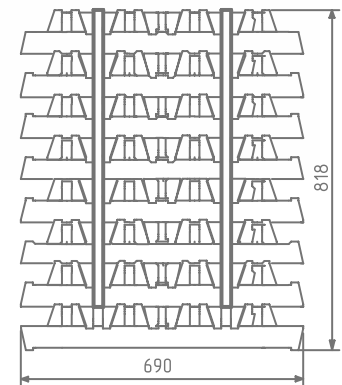
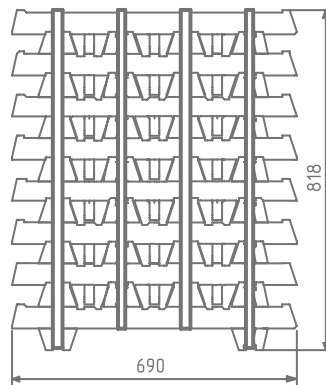
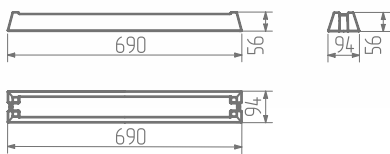
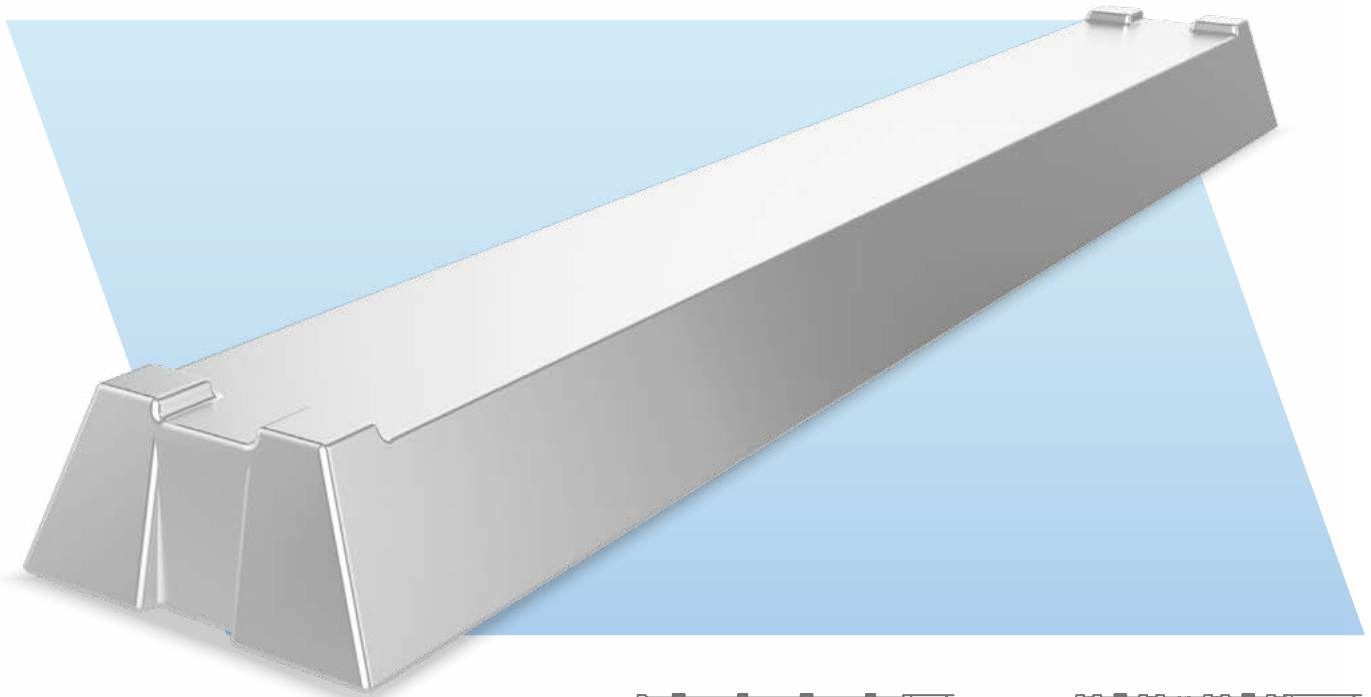
Producer:

Novokuznetsk,

Irkutsk

Primary Foundry Alloys

7 KG INGOT



ALLOY SERIES: AlSi7Mg, AlSi11Mg, AlSiCu, Piston, AlSiMgMn, AlSi10

Sr-modified/non-modified
 Weight 7 kg +/- 1 kg
 Bundle weight 550 or 750 kg +/- 70 kg
 79 or 107 ingots per bundle

Packed in polyethylene wrapping
 with 6 steel or plastic straps

Producer: Sayanogorsk

DID YOU KNOW?

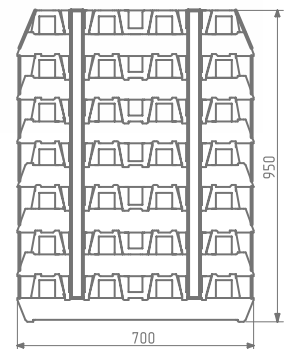
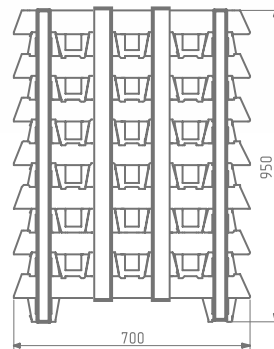
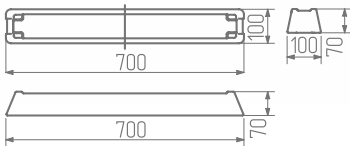
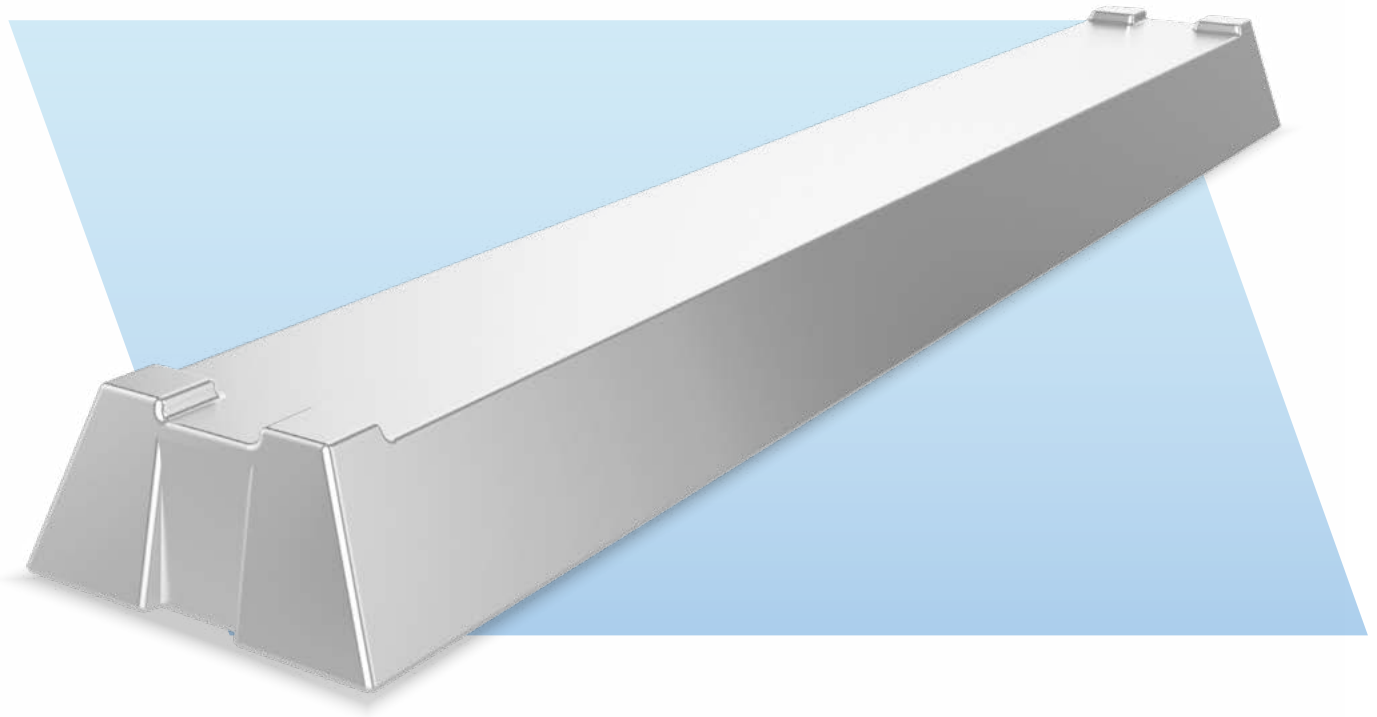
All types of vehicles, from bikes to spaceships, are made using aluminium, allowing people to move at breakneck speeds safely, cross oceans, fly in the sky and even leave our planet. Transport also accounts for 27% of aluminium consumption, the largest share by any sector. Global aluminium consumption in transport is forecast to grow at 5-7% annually through 2020.

TRANSPORT
 SHARE IN
 ALUMINIUM
 CONSUMPTION

27%

Primary Foundry Alloys

7 KG INGOT



ALLOY SERIES: AlSi7Mg, AlSi11Mg, AlSiCu, AlSiMgMn, AlSi10

Sr-modified/non-modified
 Weight 10 kg +/- 1 kg
 Bundle weight 510 or 930 kg +/- 90 kg
 51 or 93 ingots per bundle

Packed in polyethylene wrapping
 with 6 steel or plastic straps

Producer: Sayanogorsk

DID YOU KNOW?

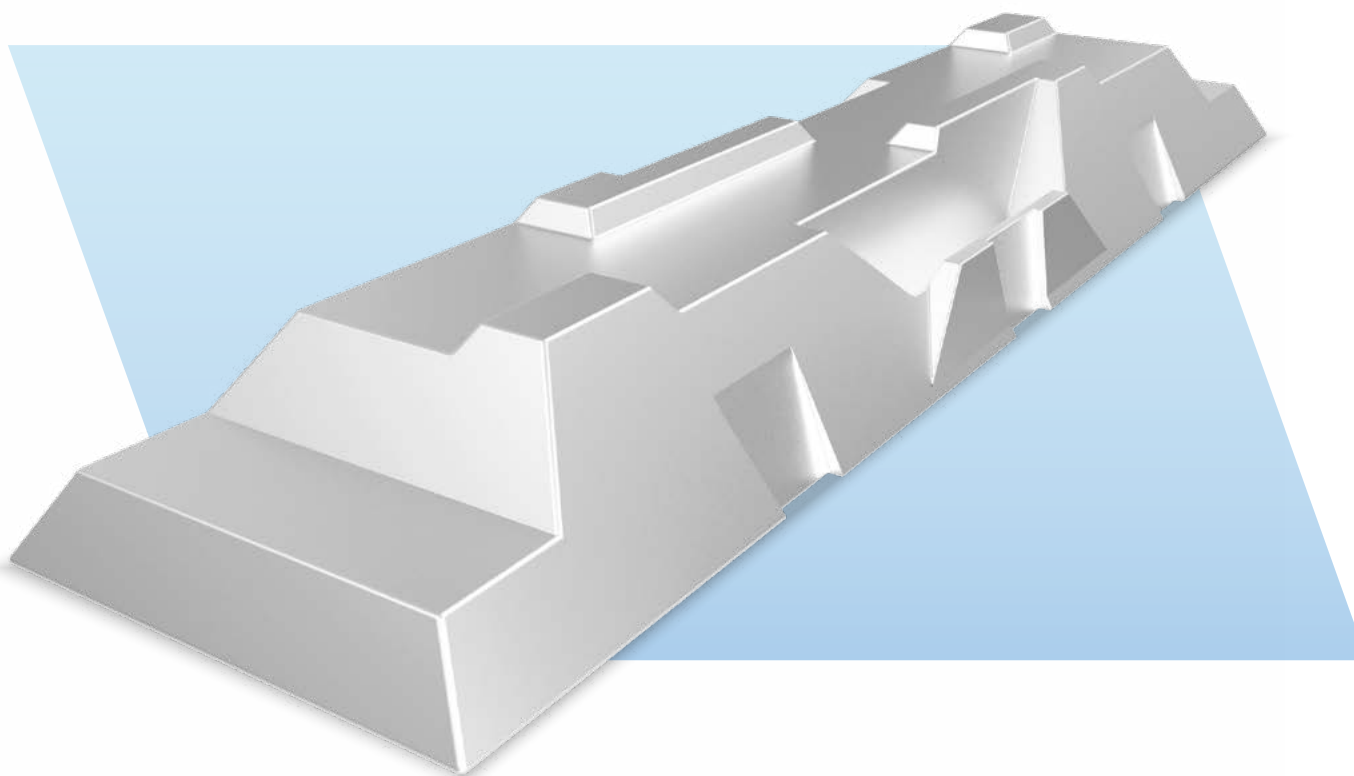
Vehicles utilising aluminium can achieve up to a 20% reduction in energy consumption through life cycle and up to 17% reduction in CO₂ emissions.

ENERGY
 CONSUMPTION
 REDUCTION
 UP TO

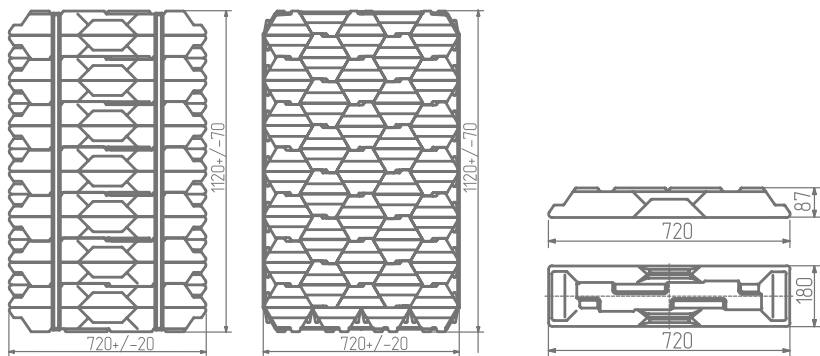
20%

Primary Foundry Alloys

15 KG INGOT



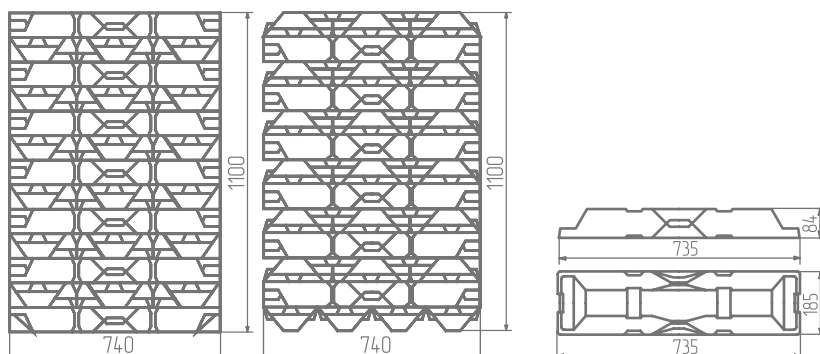
ALLOY SERIES: AISi7Mg, AISi11Mg, AISiCu, Piston, AISiMgMn, AISi10



Sr-modified/non-modified
 Weight 15 kg +/- 1.5 kg
 Bundle weight 1035 kg +/- 103 kg
 69 ingots per bundle
 Packed in 2-4 steel or plastic straps,
 polyethylene wrapping
 Parallel and crisscross stacking scheme

Producer: Novokuznetsk

ALLOY SERIES: AISi7Mg, AISi10Mg, AISi11Mg

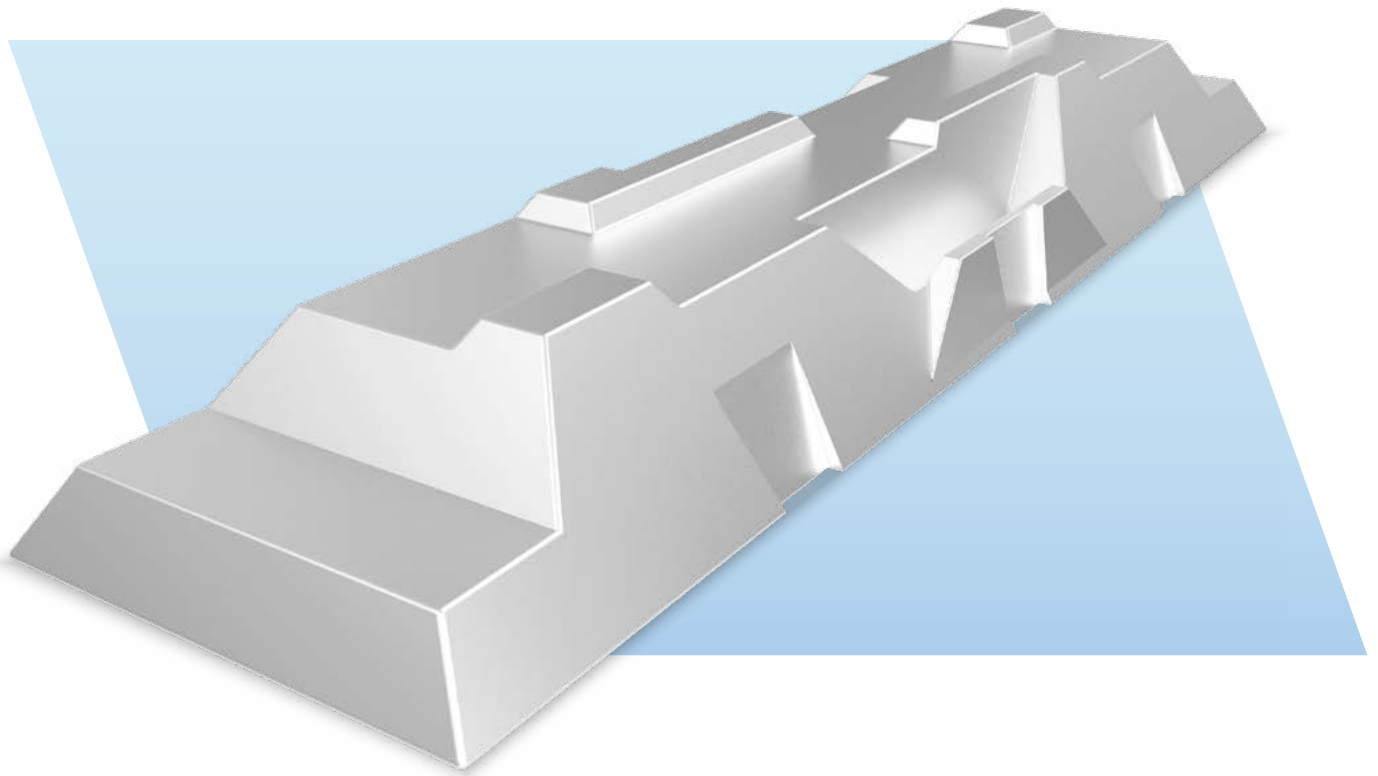


Sr-modified/non-modified
 Weight 15 kg +/- 1 kg
 Bundle weight 510, 660 or 960 kg
 34, 44 or 64 ingots per bundle
 Packed with 4 steel straps

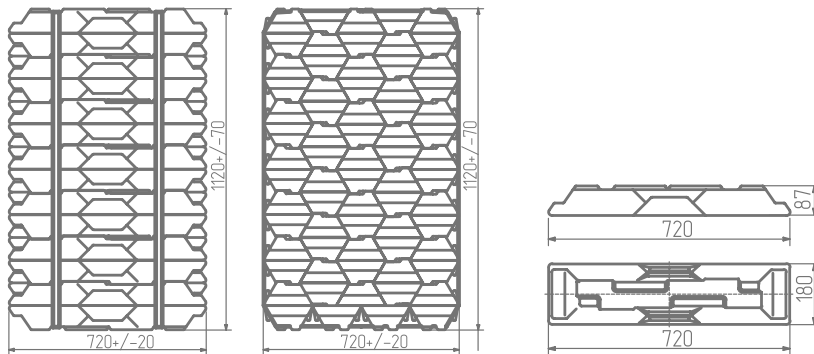
Producer: Krasnoyarsk

Primary Foundry Alloys

15 KG INGOT - SPECIAL PURPOSE ALLOYS (EXCLUSIVE ALLOYS)



ALLOY SERIES: SPECIAL CUSTOMER ALLOYS



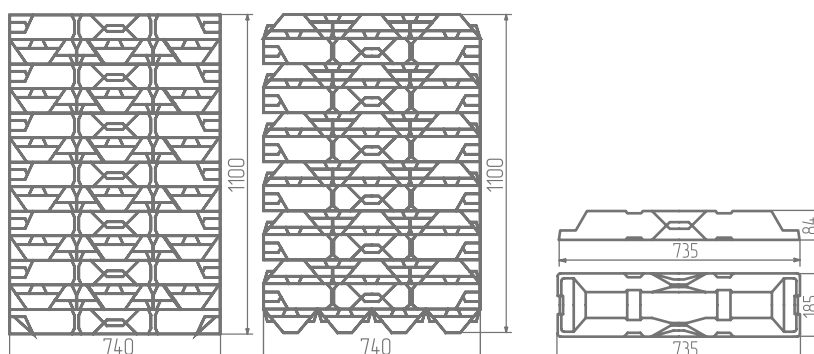
Weight 15 kg +/- 1 kg
 Bundle weight 510, 660 or 960 kg
 34, 44 or 64 ingots per bundle
 Packed with 2-4 steel or plastic straps, polyethylene wrapping
 Highest quality control standards

Designation: alloys of increased corrosion resistance, increased thermal and electrical conductivity, alloys that do not require the use of heat treatment (do not require quenching in water)

Application: GIGAcasting, car body structures, Architecture, defence engineering, etc

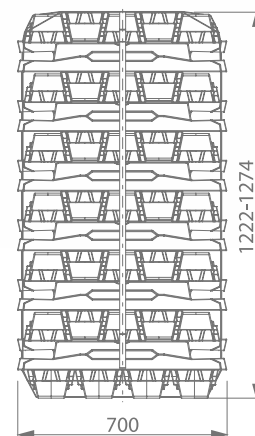
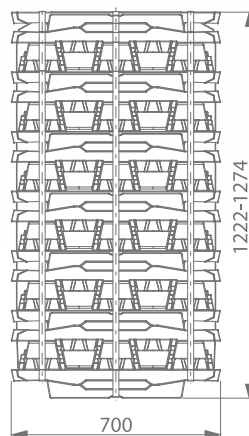
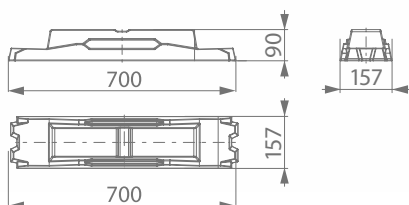
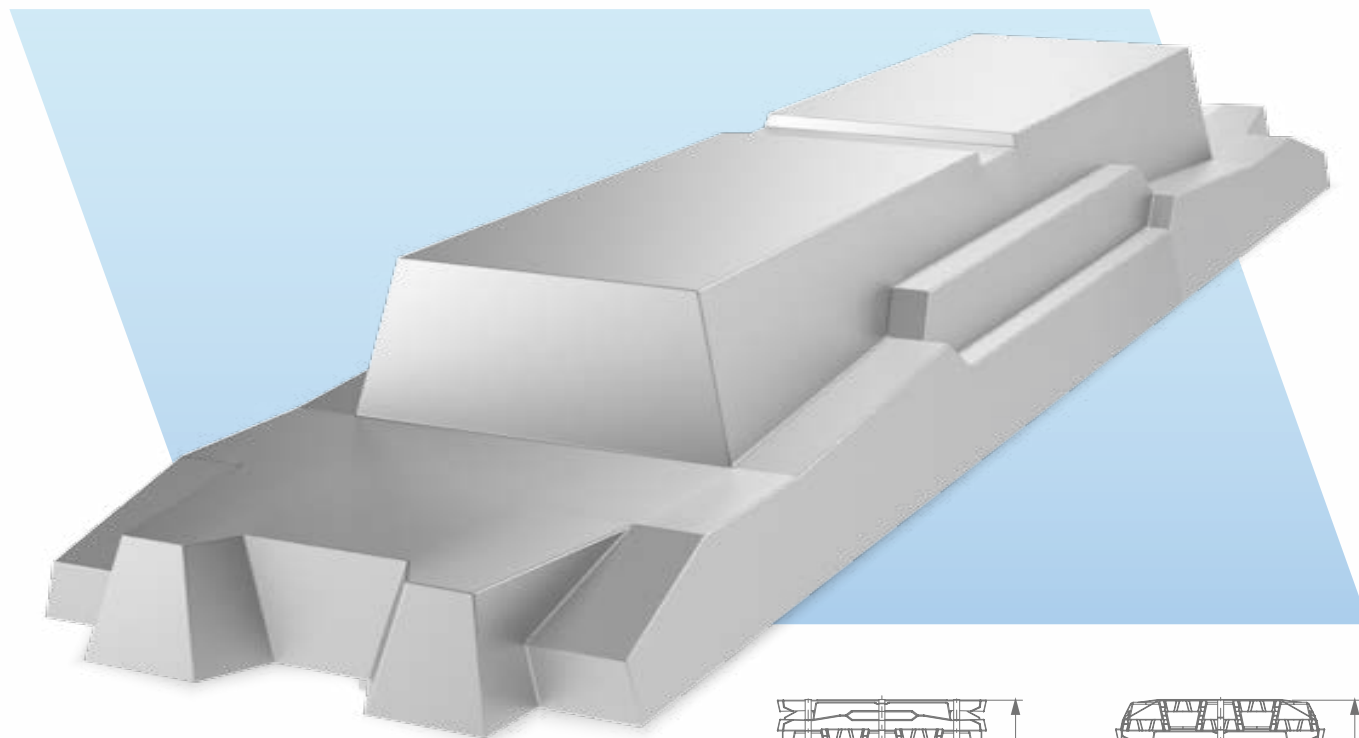
Producer: Irkutsk

ALLOY SERIES: SPECIAL CUSTOMER ALLOYS



Primary Foundry Alloys

16 KG INGOT



ALLOY SERIES: AlSi7Mg, AlSi11Mg, AlSiCu, AlSiMgMn

Sr-modified/non-modified
Weight 16 +/-1 kg

Bundle weight 704, 864 or 1024 kg
44, 54 or 64 ingots per bundle
Packed with 4 steel or plastic straps

Producer: Khakas

DID YOU KNOW?

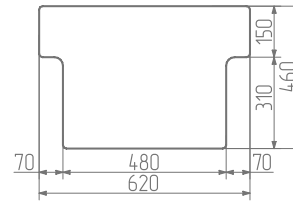
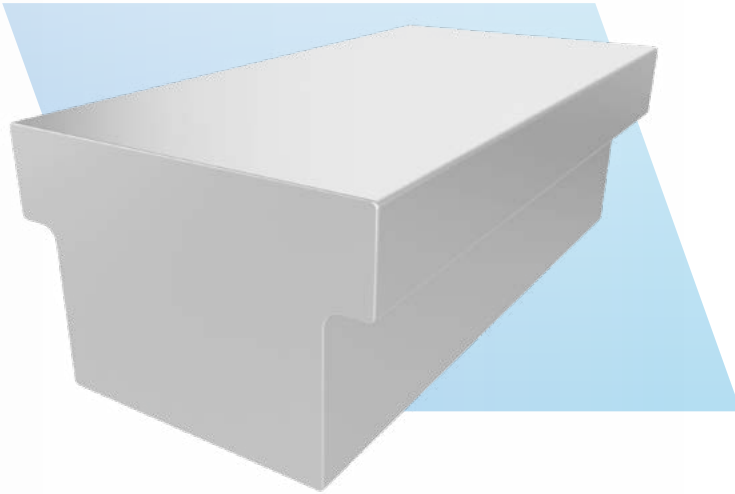
Thanks to aluminium, new high speed rail technologies promise speeds of >600 kmph without compromising safety.

RAIL SPEED
INCREASE
UP TO,
IN KMPH

>600

Primary Foundry Alloys

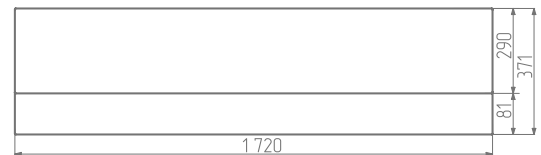
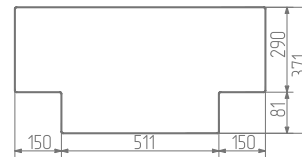
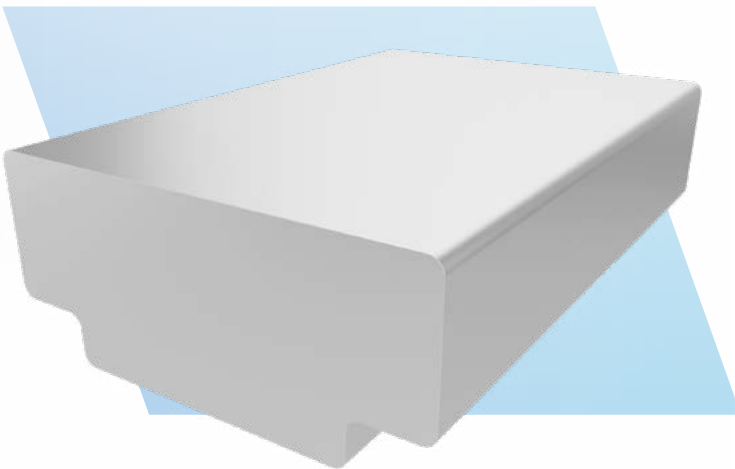
T-BAR



ALLOY T-BAR: AlSi7Mg, AlSi11, AlSiCu, piston, AlSi3Sr

Min weight 727.5 kg
Max weight 772.5 kg
Normal weight 750 kg
Uncut butts

Producer: Novokuznetsk



ALLOY T-BAR: AlSi7MgSr, AlSi3

Length up to 1720 mm
Min weight 495 kg
Max weight 1280 kg

Sawn to customer length

Producer: Krasnoyarsk

DID YOU KNOW?

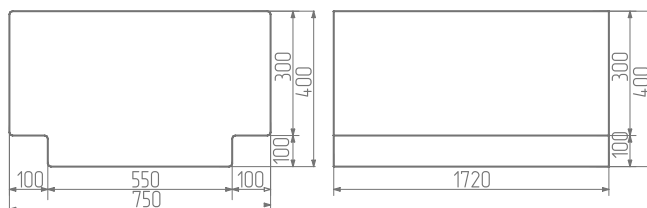
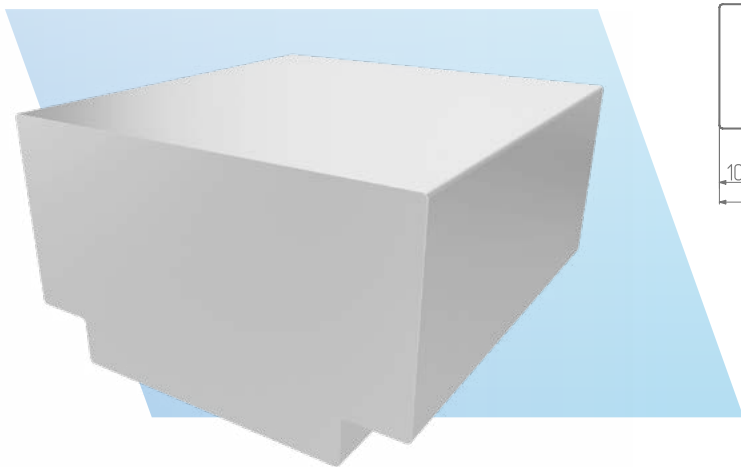
Al-3%Si T-bars are used in Galvalume steel coating. Galvalume roofing has two main advantages over the more traditional [zinc] coated galvanized steel roof, namely that it offers superior corrosion resistance and improved heat reflectivity. For these reasons, Galvalume steel roofing is now increasingly replacing more traditional Galvanized roofs. While roofing and siding is the largest single application for Galvalume, it is also used for several diverse applications (automotive, appliance, etc.)

ROOFING &
SIDING
REPRESENT
APPLICATION
FOR GALVALUME

Nº1

Primary Foundry Alloys

T-BAR

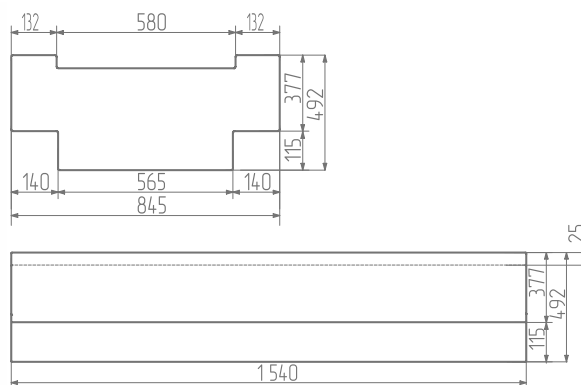
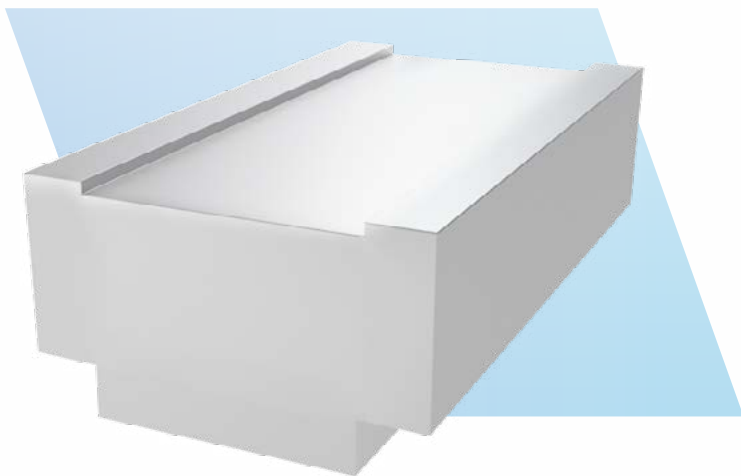


ALLOY T-BAR: AlSi7MgSr, AlSi3

Min weight 560 kg
Max weight 1290 kg

Length upto 1720 mm
Sawn to customer length

Producer: Krasnoyarsk



ALLOY T-BAR: AlSi7MgSr, AlSi3

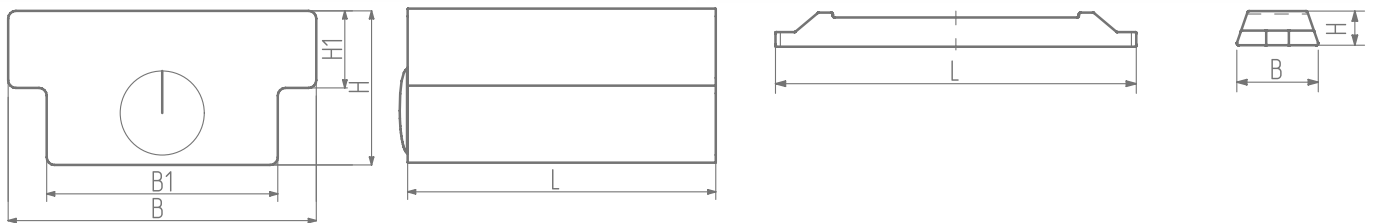
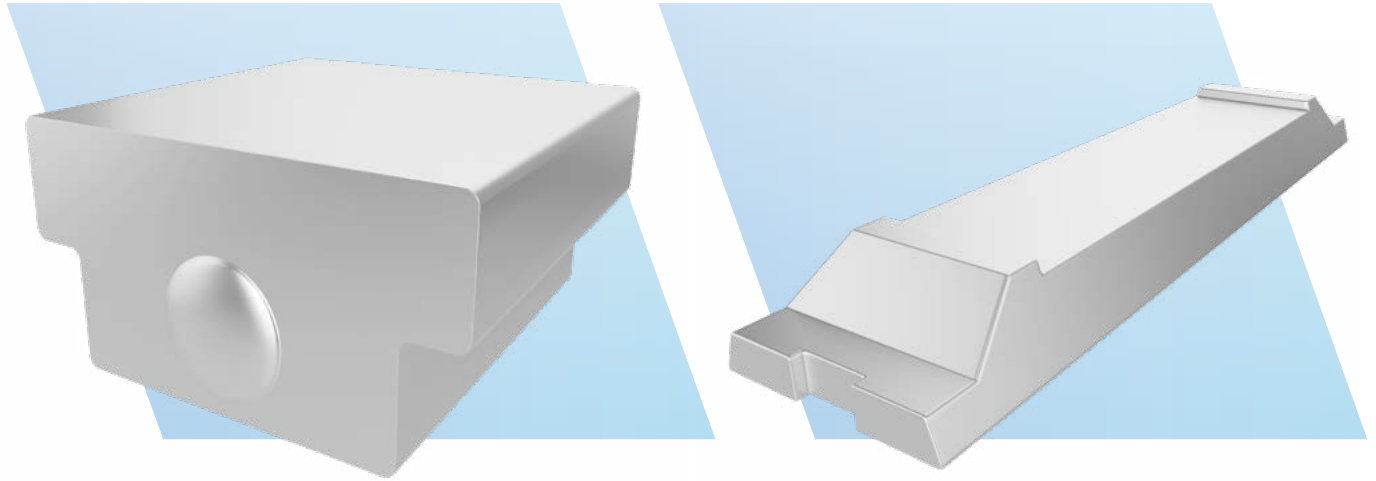
Max weight 1445 kg
Length up to 1540 mm

With notch on the top side
Sawn to customer length

Producer: Krasnoyarsk

High Purity Aluminium

SAMPLE OF HIGH PURITY ALUMINIUM T-BAR & INGOT



SPECIFICATION

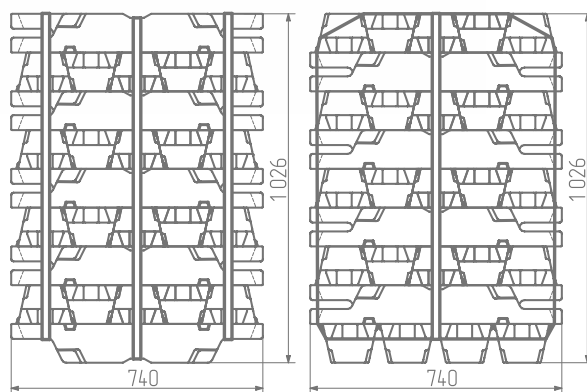
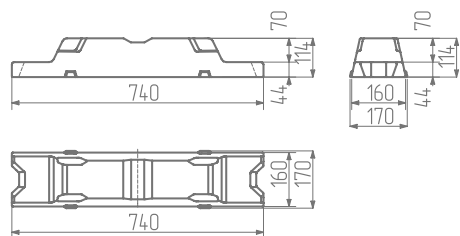
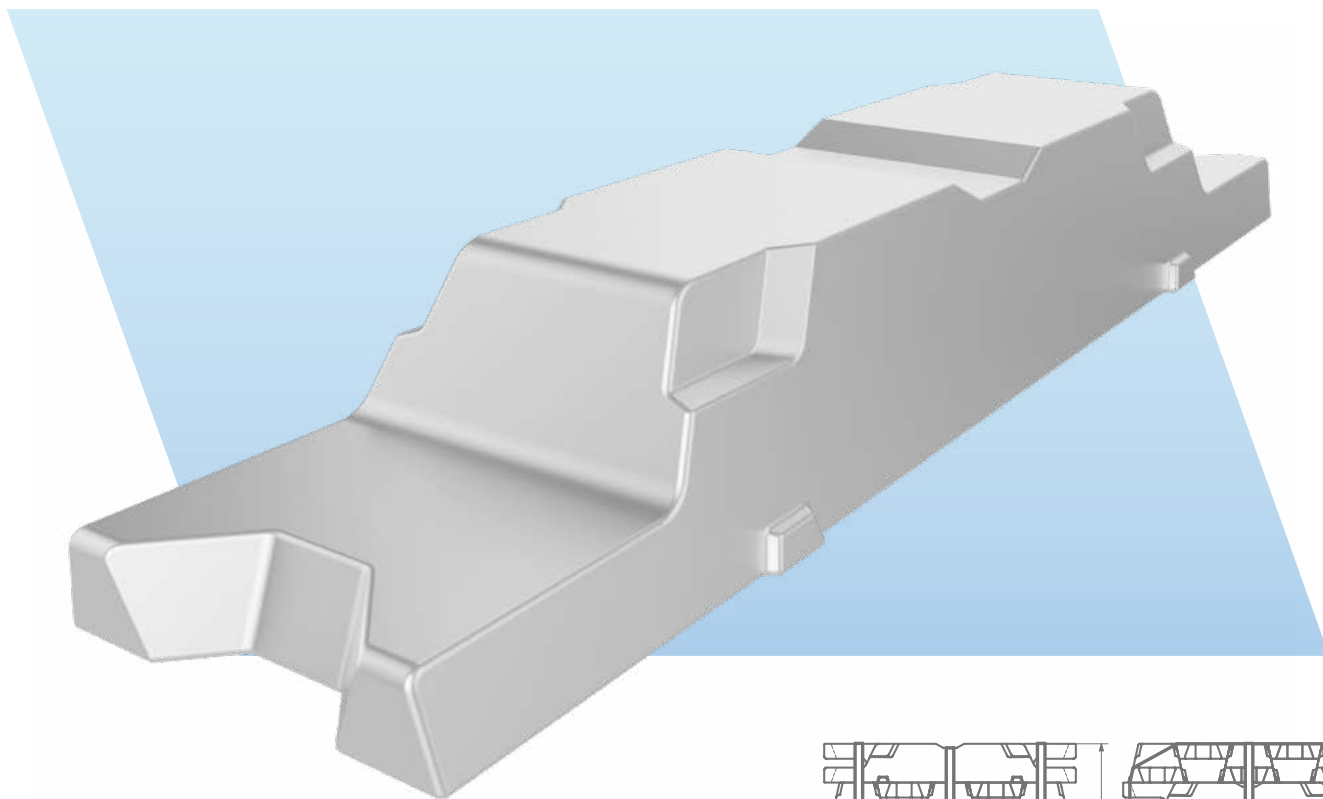
3-layer technology
 Grades 3N8, 4N, 4N6
 Regular electrolysis: A92 (P0303, P0304)

Shapes 15 kg ingot, T-bar

Producer: Krasnoyarsk, Sayanogorsk

Title	Dimensions, mm					Weight, kg
	L	B	B1	H	H1	
T-bar	800	800	600	400	200	600
Ingot	740	170		70		15

Primary Aluminium Re-melt Ingots



SPECIFICATION

Unit weight 22.7 kg
 Bundle weight 1000 kg +/- 10%
 44 ingots per bundle

Packed with 4 steel straps
 LME, SHFE registered

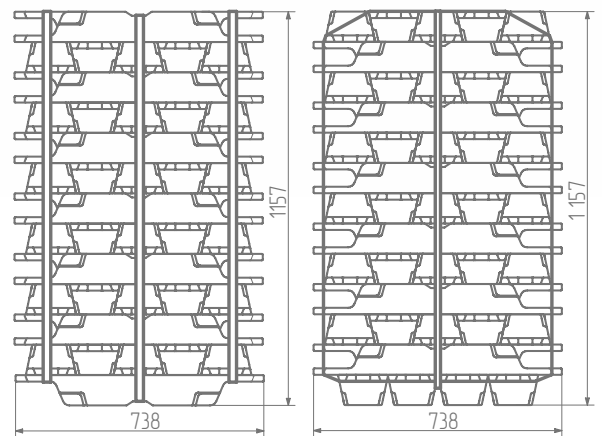
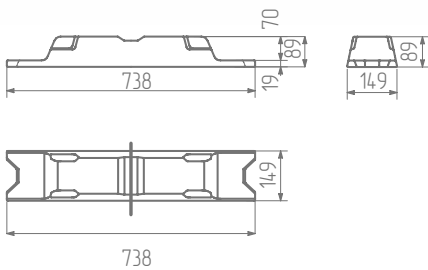
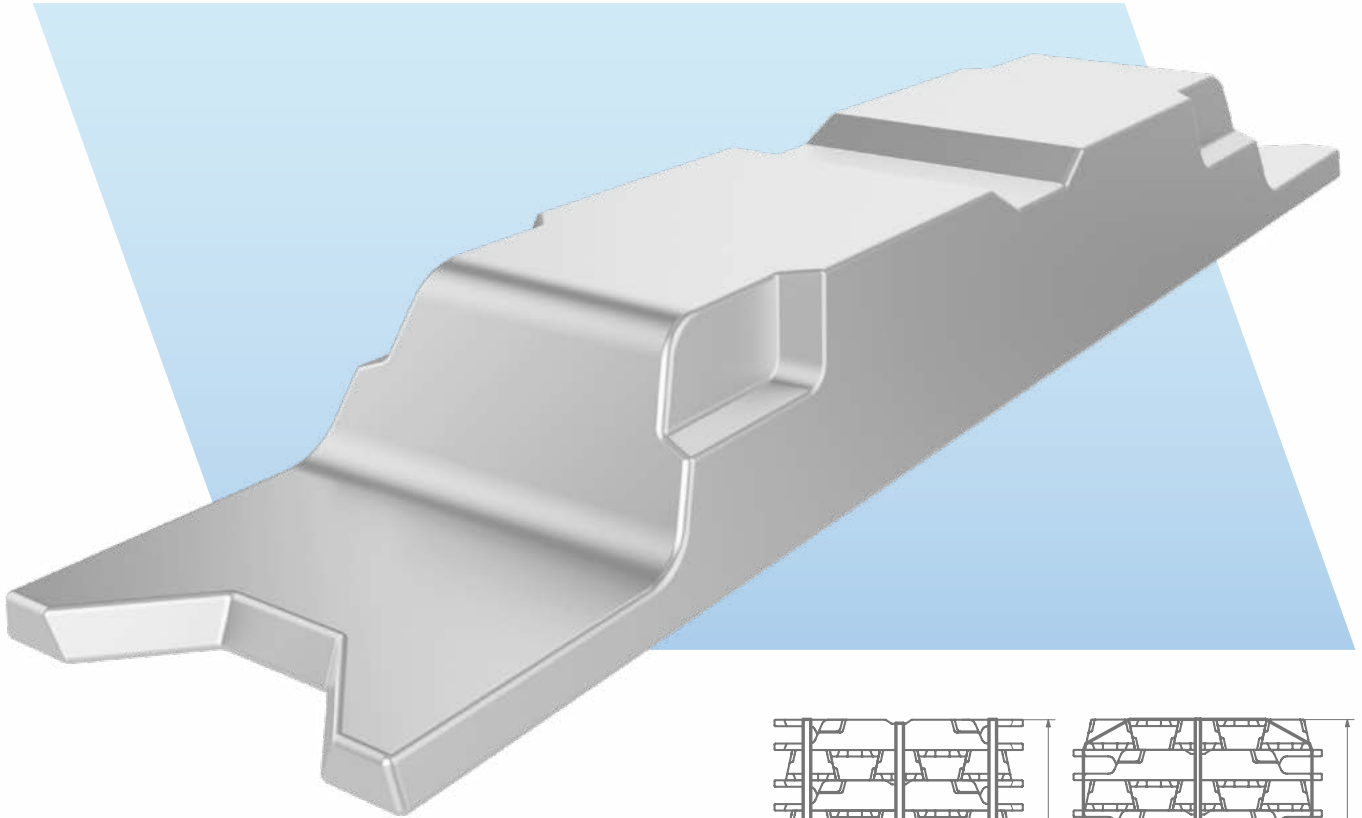
Producer: Irkutsk
 LME brand: RUSAL I

DID YOU KNOW?

Producing aluminium from hydro power generates 3 to 5 times less CO₂ emissions than from coal-based electricity. 10 million tonnes of primary aluminium, 20% of total global production, made from hydroelectricity instead of carbon-based electricity, will save the equivalent of the total emissions generated by 3 countries of similar size to Portugal.

x3-5
 DECREASE IN CO₂ EMISSIONS

Primary Aluminium Re-melt Ingots



SPECIFICATION

Unit weight 15 kg
 Bundle weight 1000 kg +/- 10%
 64 ingots per bundle

Packed with 3 steel straps
 LME registered

Producer: Irkutsk

LME brand: RUSAL I

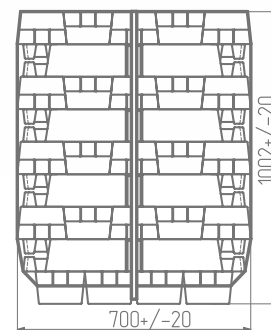
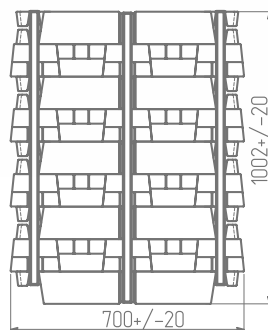
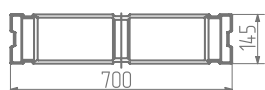
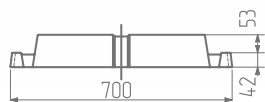
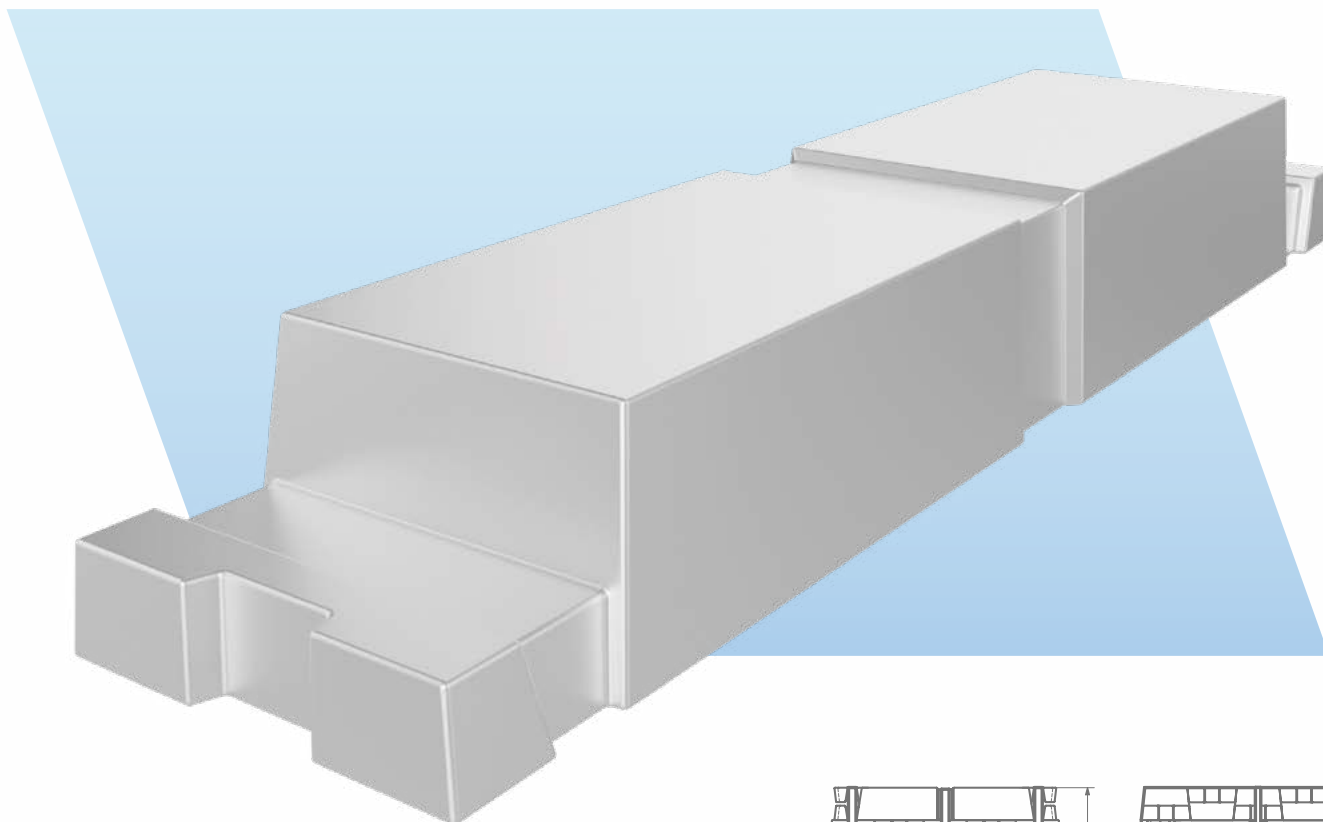
DID YOU KNOW?

Russia is a country full of rivers, streams and lakes; the hydro power potential is enormous. 3/4 of Russia's hydro energy capacity are located in Siberia. With its key production base in Eastern Siberia, RUSAL has a unique competitive advantage.

**SIBERIA
 ACCOUNTS
 OF RUSSIA'S
 HYDRO ENERGY
 CAPACITY**

3/4

Primary Aluminium Re-melt Ingots



SPECIFICATION

Unit weight 22.5 kg
 Bundle weight 990 kg +/- 10%
 44 ingots per bundle

Packed with 3+1 steel straps
 LME, SHFE registered

Producer: Khakas

LME brand: RUSAL KH

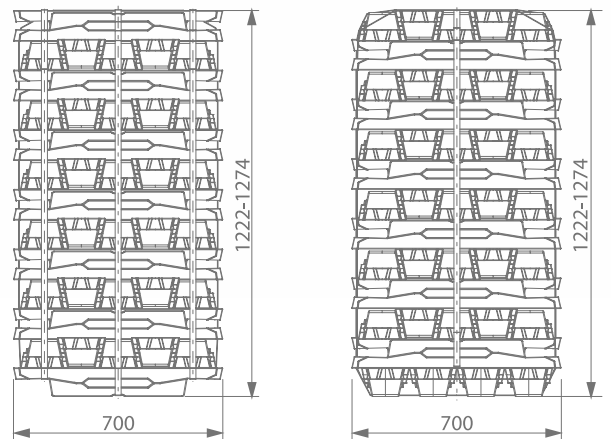
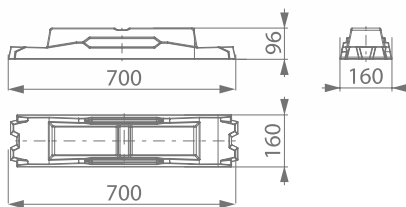
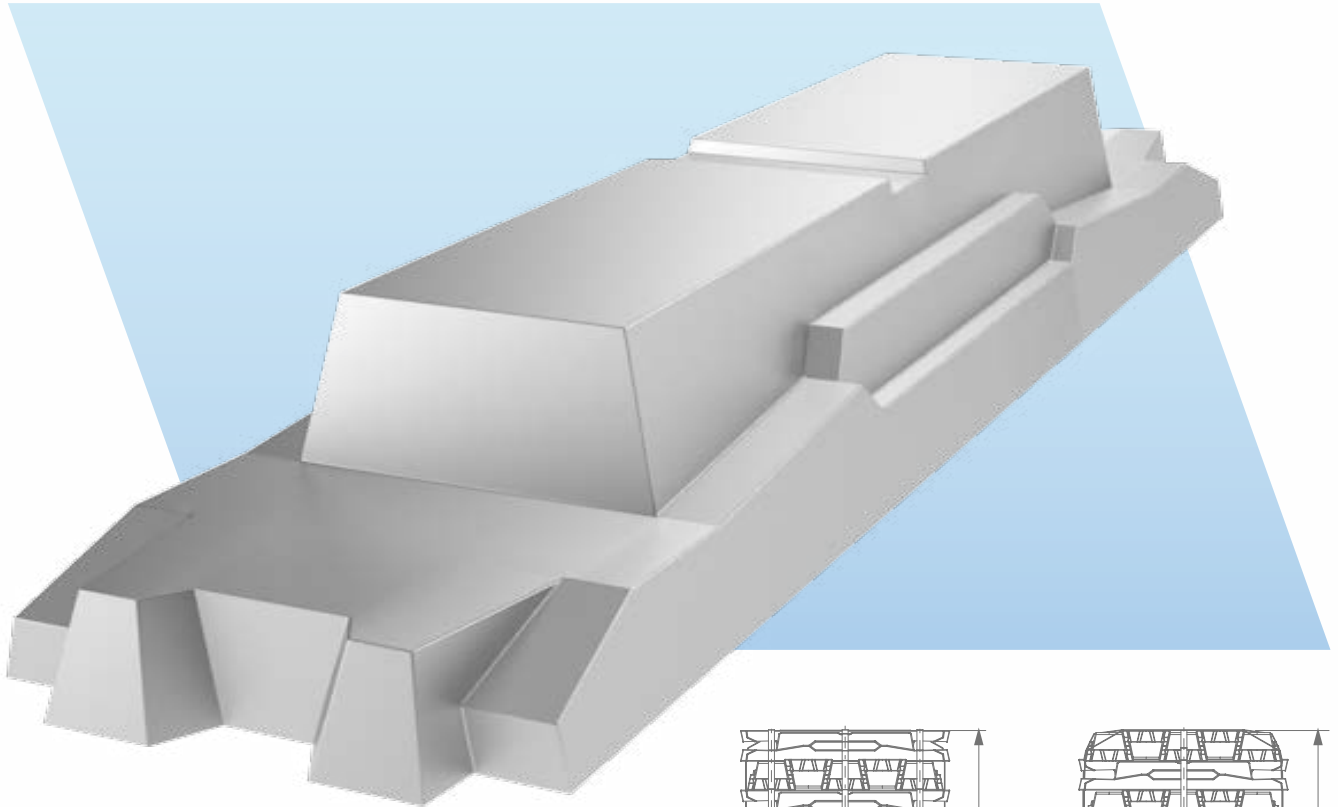
DID YOU KNOW?

Aluminium can be used in temperatures ranging between -80°C and $+300^{\circ}\text{C}$, in any climatic conditions, and does not lose its properties.

$-80...+300^{\circ}\text{C}$

ALUMINIUM USAGE TEMPERATURE RANGES BETWEEN

Primary Aluminium Re-melt Ingots



SPECIFICATION

Unit weight 16 kg
 Bundle weight 1024 kg
 64 ingots per bundle

Packed with 4 steel straps
 LME registered

Producer: Khakas

LME brand: RUSAL KH

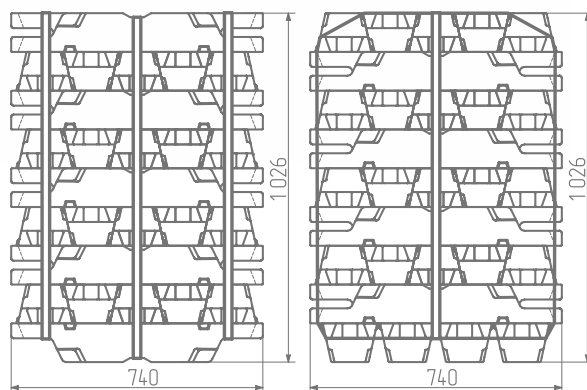
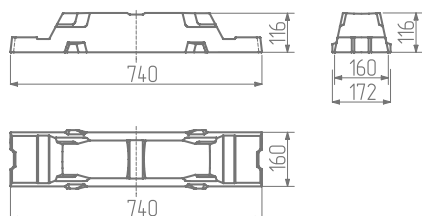
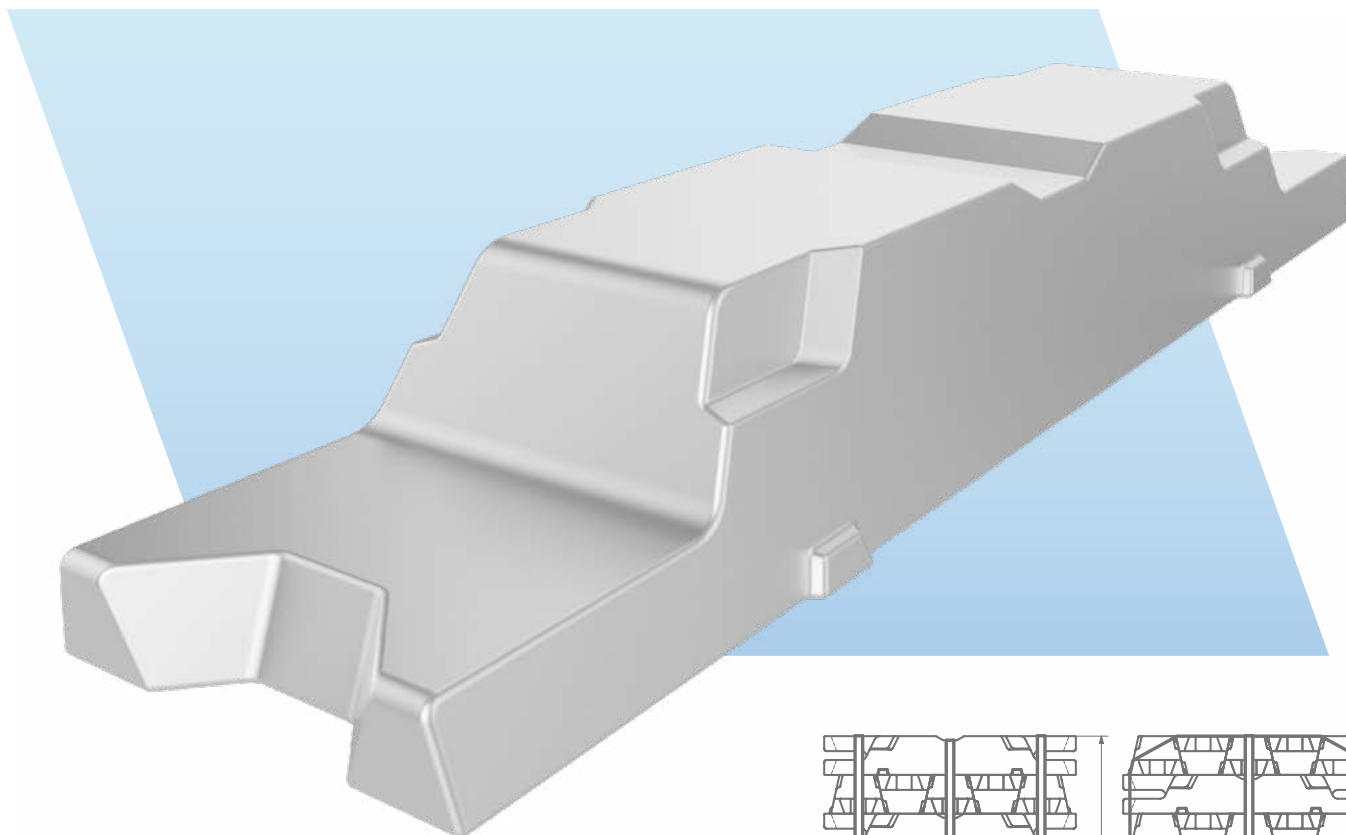
DID YOU KNOW?

Aluminium is 100% recyclable and, like a Phoenix bird, can be reborn an endless number of times. About 75% of aluminium that has ever been produced on Earth is still in use.

ALUMINIUM
 RECYCLABILITY
 ACCOUNTS
 FOR

100%

Primary Aluminium Re-melt Ingots



SPECIFICATION

Unit weight 22.5 kg
 Bundle weight 990 kg
 44 ingots per bundle

Packed with 3+1 steel straps
 LME, SHFE registered

Producer:
 BoAZ, Irkutsk, Taishet

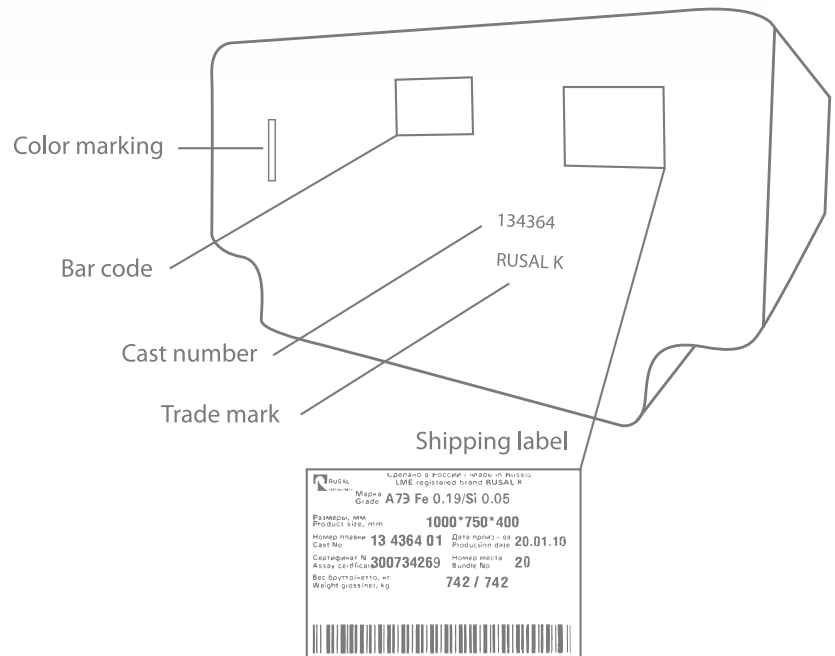
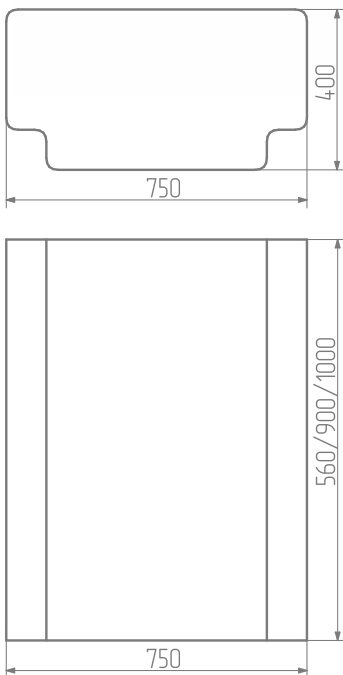
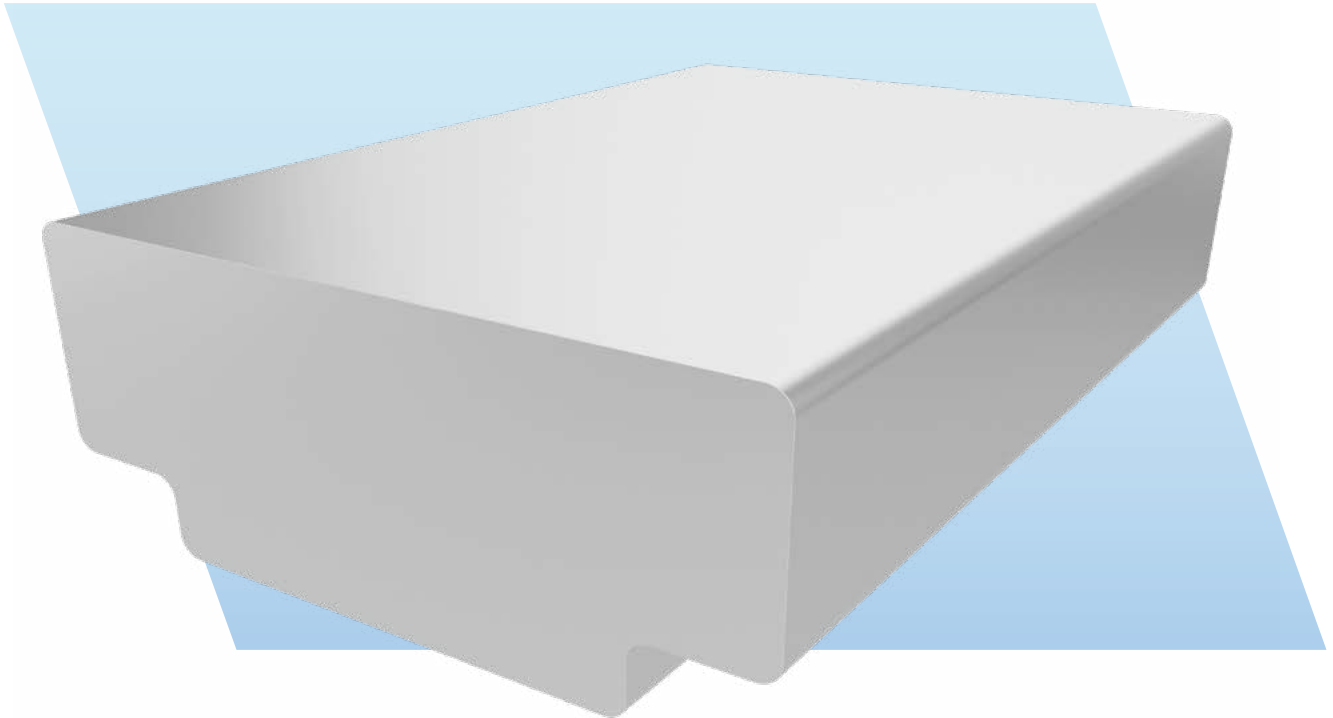
DID YOU KNOW?

Light, flexible, non-toxic and highly conductive aluminium is a perfect match for sustainable architecture. The minimum design service life of aluminium structures is 80 years.

SERVICE LIFE
 OF ALUMINIUM
 STRUCTURES
 EQUALS

80Y

Primary Aluminium T-bar Ingots



SPECIFICATION

Minimum weight 727.5 kg
 Maximum weight 772.5 kg
 Normal weight 750 kg

Cut into 560, 900
 and 1000 mm length
 Various shape modifications
 LME registered

Producer:
 Krasnoyarsk
 Novokuznetsk
 Bratsk
 Sayanogorsk
 Khakas

LME brand:
 RUSAL K
 RUSAL N
 RUSAL B
 RUSAL S
 RUSAL KH

RUSAL TODAY

KEY FACTS

Leading aluminium producer in 2021

6.2%

of global aluminium production

6.5%

of global production of alumina

61,000

employees globally

Current capacity of:

3.9

million tonnes of aluminium

10.6

million tonnes of alumina

17.4

million tonnes of bauxite



Access to clean environmentally friendly hydropower – core aluminium producing facilities located in Siberia

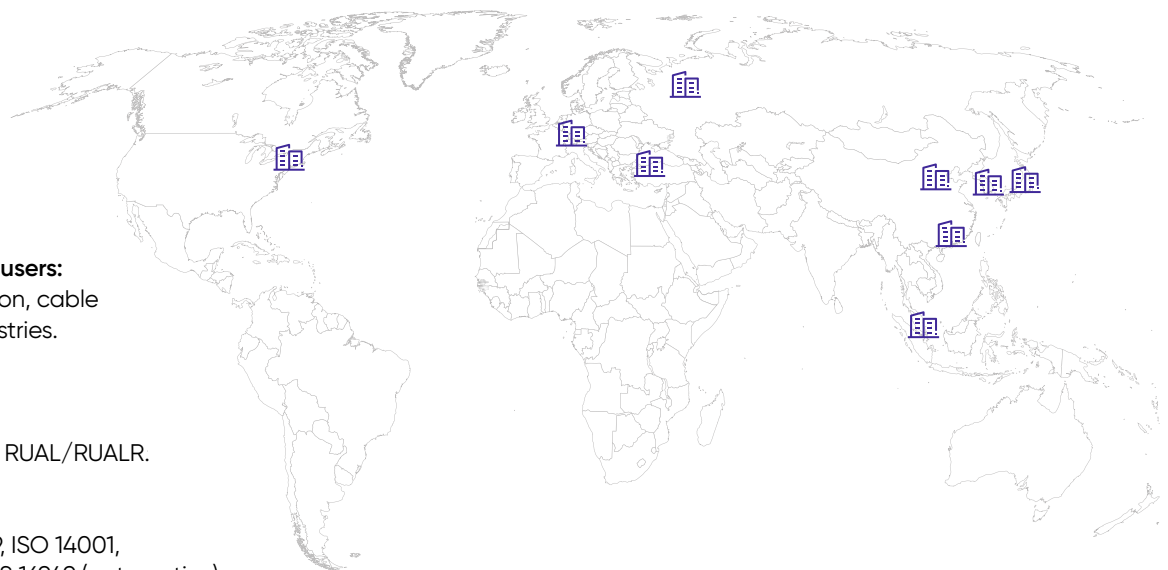


In-house R&D, engineering and design resources

60%

47% value added products share targeting 60% by 2021

ASSETS IN 13 COUNTRIES ACROSS 5 CONTINENTS



Over 700 major end users: transport, construction, cable and packaging industries.

Listed:

- SEHK: 486;
- Moscow Exchange: RUAL/RUALR.

Certified:

- ISO 9001, IATF 16949, ISO 14001, OHSAS 18001, ISO/ TS 16949 (automotive);
- REACH, RoHS, ELV and SVHC compliant supplier;
- ASI;
- DNV GL rules for classification – Ships.

 Trade offices in Zug, Singapore, New York, Beijing, Hong Kong. Representative offices in Tokyo, Seoul, Istanbul.



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