



## tailoring products for sustainable metal industries

**ALEASTUR** has a consolidated international reputation and is considered one of the leading companies in the production of grain refiners and master alloys for the aluminum industry.



### Grain Refiners

ALEASTUR produces the widest range of high quality aluminium grain refiners in the market, suitable for all of aluminium wrought and foundry alloys production and their multiple applications, from transportation and food and beverage to energy and construction



### Master Alloys

Aluminium master alloys are the smartest option for the addition of alloying elements to aluminium alloys. Master alloys ease a quick dissolution of alloying elements in liquid aluminium with a high efficiency, cleanliness, consistency, accuracy, energy and time savings



### PAF

ALEASTUR is internationally regarded as one of the most outstanding and technically advanced producer of Potassium Aluminium Fluoride (PAF).



**ALEASTUR** supplies its products to more than 800 clients in 80 countries around the world, satisfying the most demanding requirements and technical standards.

We are part of a group of companies with a direct presence throughout production facilities, subsidiaries and distribution centers in Spain, the Netherlands, Germany, USA, Brazil, Turkey, Bahrain, Thailand, Taiwan, China and Japan.

Our group endorses, reinforces and complements our activities and facilities with all the available technical and commercial resources.

We have been developing our industrial activity for more than 45 years under a permanent search for improvement in competitiveness, efficiency and specialization.

A group in expansion and in the midst of a full process of transformation.



**ALEASTUR** is a consolidated and well-known Spanish industrial group with more than 50 years of proven track-record manufacturing specialty alloys and products for both the aluminium and the steel metal industries.

Since our very inception, we have been developing our industrial activities under a permanent search for improvement in our competitiveness, efficiency, specialization and customer orientation.

We are still pushing forward our capabilities following a deep process of transformation. We are evolving towards an increasingly agile and efficient organization which makes decisions based on data and actively collaborates with the ecosystem. We put our people and their safety, our social responsibility and the environment at the centre of our sustainable growth strategy.

## AlTiB and AlTiC

Control of grain refinement is an essential process in the aluminium casting Industry

### ADVANTAGES

The use of AlTiB and AlTiC alloys as aluminium grain refiners provides the following advantages to an aluminium alloy:

- Faster casting speeds due to a higher fluidity
- Better homogeneity of the alloy and uniformity of the structure
- Reduction of the crack tendency during solidification
- Improvement of surface quality
- Enhancement of mechanical properties

### ALLOY RANGE

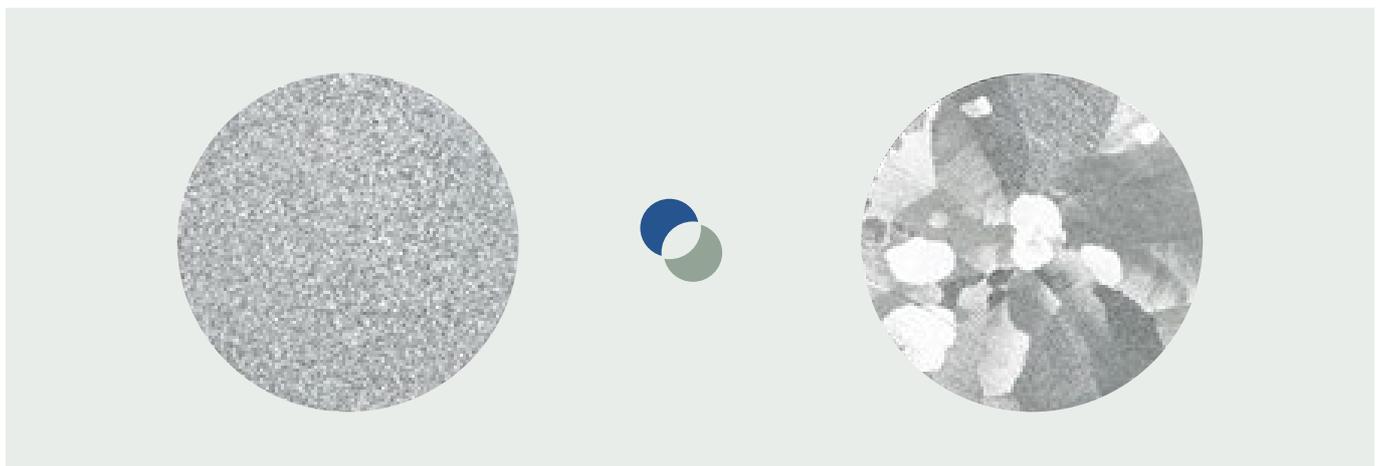
Produced from 99.7% purity aluminium Aleastur offers the widest range of AlTiB and AlTiC grain refiners for the market, following American (AA) and European (EN 575:1995) standards

| ALLOY     | EN 575   | AA    | Aleastur Colour Code  |
|-----------|----------|-------|---|
| AlTi5B1   | AM-92256 | H2252 | <span style="color: green;">●</span>                                      |
| AlTi5B0.2 | AM-92252 | H2207 | <span style="color: green;">●</span> <span style="color: black;">●</span> |
| AlTi3B1   | AM-92250 | H2214 | <span style="color: green;">●</span> <span style="color: brown;">●</span> |

Other Ti:B ratios available on request

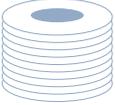
| ALLOY      | EN 575 | AA    | Aleastur Colour Code   |
|------------|--------|-------|--|
| AlTi3C0.15 |        | H2231 | <span style="color: red;">●</span> <span style="color: purple;">●</span> |

Other Ti:C ratios available on request



## FORMS

**Coil**



| Wire Diameter | Inner Diameter | Outer Diameter    | Width  | Weight           |
|---------------|----------------|-------------------|--------|------------------|
| 9.5 ± 0.5 mm  | 360 mm         | 720, 830, 1050 mm | 300 mm | 180, 270, 450 kg |

Packaging: Coils on wooden pallet



**Sticks**



| Wire Diameter | Length       | Weight     |
|---------------|--------------|------------|
| 9.5 ± 0.5 mm  | 500, 1000 mm | 100, 200 g |

Packaging: Cardboard boxes, 25 kg, 100 kg, 1300 kg  
Others on Request



**Contibar**



| Weight        |
|---------------|
| 200 to 3500 g |

Packaging: Big bag / Drums / Shrink wrapped on wooden pallet



**Waffle**



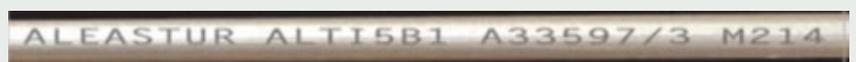
| Dimensions    | Weight       |
|---------------|--------------|
| 500x200x50 mm | 6.5 ± 1 kg * |

Packaging: Shrink wrapped on wooden pallet  
*\*Typical value for 10% alloying element*



### Full traceability:

Producer, product name, heat number/coil number and remaining length of rod in the coil printed every meter.



# Aluminium Grain Refiners and Master Alloys

|  | ALLOY         | European Standard (EN 575) | American Standard (AA) | Aleastur Colour Code | Forms  |
|--|---------------|----------------------------|------------------------|----------------------|--|
| <b>Aluminium Grain Refiners</b>                        | AlTi5B1       | AM-92256                   | H2252                  | ●                    |  <br>Coil Sticks<br> <br>Contibar Waffle         |
|  | AlTi5B0.2     | AM-92252                   | H2207                  | ● ●                  |  |
|  | AlTi3B1       | AM-92250                   | H2214                  | ● ●                  |  |
|  | AlTi3C0.15    |                            | H2231                  | ● ●                  |  |
| Other Ti:B and T:C ratios on request                   |               |                            |                        |                      |  |
| <b>Aluminium Boron</b>                                 | AlB3          | AM-90500                   | H2203                  | ●                    |  <br>Coil Sticks<br> <br>Contibar Waffle     |
|  | AlB4          | AM-90502                   | H2204                  | ● ●                  |  |
|  | AlB5          | AM-90504                   | H2217                  | ● ● ●                |  |
|  | AlB8          |                            | H2222                  | ● ●                  |  |
|  | AlB10         |                            | H2221                  | ● ●                  |  |
| Available forms subjected to B%.<br>Others on request  |               |                            |                        |                      |  |
| <b>Aluminium Strontium</b>                             | AlSr5         | AM-93802                   | H2018                  | ● ●                  |  <br>Coil Sticks<br> <br>Contibar Waffle |
|  | AlSr10        | AM-93804                   | H2007                  | ● ●                  |  |
|  | AlSr15        |                            | H2019                  | ● ● ●                |  |
|  | AlSr20        |                            | H2020                  | ● ●                  |  |
|  | AlSr10Ti1B0.2 |                            | H2017                  | ● ●                  |  |
| Available forms subjected to Sr%.<br>Others on request |               |                            |                        |                      |  |
| <b>Aluminium Calcium</b>                               | AlCa10        | AM-92000                   | H2001                  | ● ○                  |  <br>Coil Sticks<br> <br>Contibar Waffle |
| Available forms subjected to Ca%.<br>Others on request |               |                            |                        |                      |  |
| <b>Aluminum Titanium</b>                               | AlTi5         | AM-92201                   |                        | ●                    |  <br>Coil Sticks<br> <br>Contibar Waffle |
|  | AlTi6         | AM-92202                   | H2206                  | ●                    |  |
|  | AlTi10        | AM-92204-92205             | H2209-2210             | ● ●                  |  |
| Available forms subjected to Ti%.<br>Others on request |               |                            |                        |                      |  |

|                                   | ALLOY    | European Standard<br>(EN 575) | American Standard<br>(AA)   | Aleastur Colour<br>Code   | Forms  |
|-----------------------------------|----------|-------------------------------|---|---|--|
| <b>Aluminum<br/>Master Alloys</b> | AlCr10   | AM-92402                      | H2918   |    | <br> |
|                                   | AlCr20   | AM-92404-92405                | H2919-2920-2921   |    |  |
|                                   | AlCu33   | AM-92900-92901                |   |    |  |
|                                   | AlCu50   | AM-92902-92903                | H2148-2149-2150   |    |  |
|                                   | AlFe10   | AM-92600-92601                | H2810-2811  |    |  |
|                                   | AlFe20   | AM-92602                      |   |   |  |
|                                   | AlMg20   | AM-91202                      |   |  |  |
|                                   | AlMg50   | AM-91204                      | H2011   |  |  |
|                                   | AlMn10   | AM-92500-92501                | H2410-2411  |  |  |
|                                   | AlMn20   |                               |   |  |  |
|                                   | AlMn25   |                               | H2425   |  |  |
|                                   | AlNi20   | AM-92802                      | H2501   |  |  |
|                                   | AlSb10   | AM-95100                      |   |   |  |
|                                   | AlSi20   | AM-91400-91401                | H2320-2321  |  |  |
|                                   | AlSi50   | AM-91402-91403                | H2350   |  |  |
|                                   | AlV5     |                               | H2605   |  |  |
|                                   | AlV10    | AM-92300                      | H2610   |  |  |
|                                   | AlZr5    | AM-94000-94001                | H2607   |  |  |
|                                   | AlZr6    |                               | H2606   |  |  |
|                                   | AlZr10   | AM-94002-94003                | H2610-2612  |  |  |
| AlZr15                            | AM-94004 | H2615                         |  |   |  |

## Aluminium Strontium Master alloys

Modification of eutectic and hypoeutectic AlSi alloys allows a transformation of coarse and acicular eutectic Silicon to a fine fibrous structure, redistributing the porosity (turning the macroporosity into microporosity) and thus improving the mechanical properties of the alloy.

### ADVANTAGES

Aluminium Strontium Master Alloys are the most extensively used modifier due to:

- Higher performance of the Strontium when added in the form of Master Alloy
- Safer and easier handling and addition to the melt
- Less furnace lining erosion
- Minimal fading and the modification is retained even after several remelts

### ALLOY RANGE

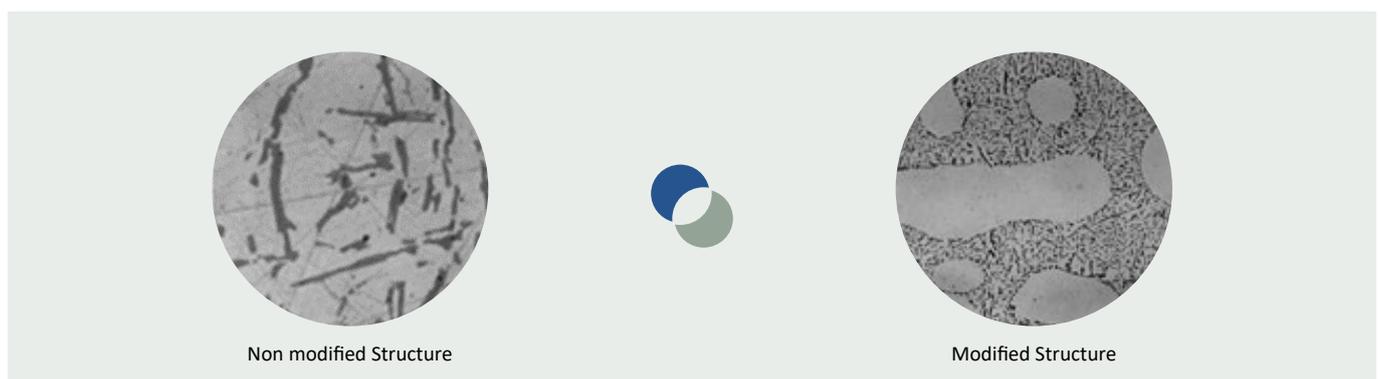
Produced from 99.7% purity aluminium Aleastur offers the widest range of AlSr Master Alloys, following American (AA) and European (EN 575:1995) standards

| ALLOY         | EN 575   | AA    | Aleastur Colour Code  |
|---------------|----------|-------|---|
| AlSr5         | AM-93802 | H2018 |  |
| AlSr10        | AM-93804 | H2007 |  |
| AlSr15        |          | H2019 |  |
| AlSr20        |          | H2020 |  |
| AlSr10Ti1B0.2 |          | H2017 |  |

Available forms subjected to Sr%. Others on request

### ADDITION

The Sr addition level to use will depend upon the Silicon content in the alloy. Modification of eutectic alloys is more complex than hypoeutectic ones, requiring higher addition rates, up to 0.03% Sr for the AlSi12 alloy. Sand casting requires higher addition rates than permanent mold and die-casting. Addition levels between 0.01% and 0.02% should be enough for permanent mold. When premium castings are produced, we recommend the use of both a modifier and a grain refiner.



## FORMS

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Packaging: Coils on wooden pallet



### Sticks



| Wire Diameter | Lenght       | Weight     |
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| 9.5 ± 0.5 mm  | 500, 1000 mm | 100, 200 g |

Packaging: Cardboard boxes, 25 kg, 100 kg, 1300 kg  
Others on Request



### Contibar



| Weight        |
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| 500x200x50 mm | 6.5 ± 1 kg * |

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