

	Technical Specification	Doküman No : TS.0014 Document No : İlk Yayın Tarih : 9/27/2013 Publish Date : Revizyon Tarihi : 3/5/2018 Revision Date : 1 Rev. No : 1 Sayfa/Page : 1/4
	<b>ALLOYING ELEMENTS (SILICON)</b>	

## REVİZYON TARİHÇESİ/REVISION HISTORY

Son Revizyon Açıklaması / Last Revision Explanation	Değişen Sayfa / Changed Page
IATF 16949:2016 integration.	3, 4

ONAY / APPROVAL		
	ADI-SOYADI/ NAME-SURNAME	UNVANI/ TITLE
HAZIRLAYAN ONAYI/ PREPARATION APPROVAL	HİKMET KAYAÇETİN	Ar-Ge Uygulamalı Araştırmalar Teknisyeni -A Approved electronically via QDMS.
YÜRÜRLÜK ONAYI/ ENFORCEMENT APPROVAL	MUSTAFA MURAT DÜNDAR	Teknoloji Direktörü Approved electronically via QDMS.

### 1.0. KAPSAM/SCOPE

This specification identifies the required properties of Silicon (Si) master alloy added into the liquid aluminum in alloying practices of ASSAN aluminum.

### 2.0. MALZEME TANIMI VE ÖZELLİKLERİ/PRODUCT DESCRIPTION AND SPECIFICATIONS

The materials to be delivered shall meet the qualities stipulated in this specification.

#### 2.1. Chemical Composition

Si	% 98.00
Fe	max. % 0.65
Ca	max % 0,50
Cu	max. % 0.02
Mn	max. % 0.02
Mg	max. % 0.005
Pb	max. % 0.005
Zn	max. % 0.02
Each of the remaining	max. % 0.05
Others, total	max. % 0.10

TEDARİKÇİ ONAYI/APPROVAL OF SUPPLIER		
TEDARİKÇİ ADI/ SUPPLIER NAME		MÜHÜR / İMZA/ SIGNATURE
YETKİLİ İSİM/ RESPONSIBLE		
TARİH/DATE		

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## 2.2. Physical Properties

No oxide deposits, swelling or any dirt (rust, mud etc.) should be present on the ingot surfaces. Shall be rigid enough not to crumble when held in hand. The container bag should not include any powder form of Si at the bottom.

## 2.3. Dissolution in liquid metal

The recovery rate of Si element in the metal bath must be above 95% for the application temperature of 700-800 °C at the end of 30 minutes.

## 3.0. TEST SERTİFİKASI VE / VEYA KOŞULLARI/ TEST CERTIFICATE AND/OR CONDITIONS

The supplier shall provide a test certificate for each material delivered showing the content of the master alloy that comply the specified values above. The following information must be included in the certificate:

Supplier's Name  
Assan Order Number  
Chemical composition  
Product Name (and code, if available )

## 4.0. TESLİMAT ŞEKLİ/ DELIVERY CONDITIONS

Shall be in packages weighing 25 or 1150 kg that are not affected by the environmental conditions (such as rain, moisture, mud and dust) and the packaging shall allow ease of handling by forklift.

## 4.2. Labeling

The following information should be shown on the label prepared for each skid:

Supplier's Name  
Material Name  
Net Weight  
Shipping date  
Production lot

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### 5.0. YÜKÜMLÜLÜK/ OBLIGATION

The supplier is obliged to meet the requirements indicated in this specification for each lot of materials delivered. The materials that do not meet with the requirements specified in this document shall be returned. ASSAN may charge all the losses originating from the master alloy itself, that does not comply the specification, to the supplier, including all the processing cost so far incurred and any charges generated by the use of material in the application of ASSAN customer and endorsed by the customer of ASSAN. In case of any discrepancy related to the quality issue violating the specification, the investigation reports issued by local research institute, TUBİTAK or universities İTÜ, ODTÜ, YTÜ will be employed for resolution.

### 6.0. SORUMLULUK/ RESPONSIBILITIES

The Product and Process Development Department is responsible from checking of certificate provided by the supplier for compliance with the specification. The Cast shop is responsible for checking physical properties and the proper use of the material in prescribed practices.

### 7.0. DİĞER HUSUSLAR/ OTHER

Supplier is obliged to have master alloy be tested in an accredited laboratory once in a year and submit the results to ASSAN.

#### 7.1. Product and System Documents

Supplier must declare that all materials are in conformance with the following regulations;

System and Product Documents		Period	Time
System Documents	ISO 9001 (association which prepares the documents must be accredited by one of IAF MLA members <a href="http://www.iaf.nu//articles/IAF_MEMBERS_SIGNATORIES/4">http://www.iaf.nu//articles/IAF_MEMBERS_SIGNATORIES/4</a> )	Supplier Selection & Each Update (once in every three year)	
	Certificate of KOSHER (association which prepares the documents must be declared by this web site specified below; <a href="http://www.akokosher.org/members.html">http://www.akokosher.org/members.html</a> )	Supplier Selection & Each Update (yearly)	
Product Documents	MSDS, TDS	Every year	January
	RoHS Analysis	Every year	January

#### TEDARİKÇİ ONAYI/APPROVAL OF SUPPLIER

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Reach Declaration	Twice in a year	January December
Allergene Declaration	Every year	January
Food Contact Declaration	Every year	January
Declaration for none of your products contain Palm Oil	Every year	January
Declaration for none of your products contain MOSH, MOAH, POSH, PAO	Every year	January
Declaration for none of your products contain Silicone	Every year	January
Declaration for none of your products contain PFAS (Polyfluoroalkyl Substances)	Every year	January
Declaration for none of your products contain PFCs (Perfluorinated Compound)	Every year	January
Declaration for none of your products contain latex	Every year	January
Declaration for none of your products contain Bisphenol compounds (BPA, BPS, BPF)	Every year	January
Declaration for none of your products contain asbestos	Every year	January

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