	TEKNİK ŞARTNAME/ TECHNICAL SPECIFICATION	Döküman No Document No : TS.057
	ALLOYING ELEMENT (Iron)	İlk Yayın Tarihi Publish Date : - Rev. Tarihi Rev.Date : 18.09.2013 Rev. No: : 05 Sayfa/Page : 1 / 1

### REVİZYON TARİHÇESİ/REVISION HISTORY

Rev. No	Revizyon Tarihi Revision Date	Revizyon Açıklaması Revision Explanation	Değişen Sayfa Changed Page	Revize Eden Revised By
1	.....	.....		
2	.....	.....		
3	14.10.2011	Change of people responsible with the issuing of this document does not change the acceptance criteria.		
4	22.11.2011	Responsibility part has been updated. Change of acceptance criteria for physical properties Metallographic Properties part has been removed		
5	18.09.2013	General revision.	All	M.Dündar

### 1.0. KAPSAM/SCOPE

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

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

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



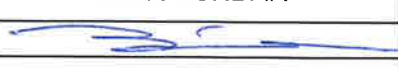
#### 2.1. Chemical Composition


Description	By mass	
	Fe	Al ve flux
%75 tablet	% 74-76	% 24-26
% 80 tablet	% 79-81	% 19-21

#### 2.2. Physical Properties

No oxide deposits, swelling or any dirt (rust, mud etc.) should be present on the surface of tablet and pallets. Tablets shall be intact enough not to fall apart during handling.

#### 2.3. Dissolution in liquid metal

	HAZIRLAYAN/PREPARED BY	KALİTE SİSTEM ONAYI/ OMS APPROVAL	YÜRÜRLÜK ONAYI/ ENFORCEMENT APPROVAL
ÜNVANI/TITLE	RD DIRECTOR	QMS Specialist	RD DIRECTOR
ADI-SOYADI/ NAME-SURNAME	Murat DÜNDAR	Gülen KIBAR BAKDAAL	Murat DÜNDAR
İMZA/SIGNATURE			
TEDARİKÇİ ONAYI/APPROVAL OF SUPPLIER			
TEDARİKÇİ ADI/ SUPPLIER NAME		MÜHÜR / İMZA/ SIGNATURE	
YETKİLİ İSİM/ RESPONSIBLE			
TARİH/DATE			

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	<b>ALLOYING ELEMENT (Iron)</b>	

The recovery rate of Fe 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 analysis  
Product Name (and code, if available )

### 4.0. TESLİMAT ŞEKLİ/ *DELIVERY CONDITIONS*

#### 4.1. Packaging

Shall be packed in maximum 1.5-ton packages 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. Dimensions should not exceed the limits given in Table 1.


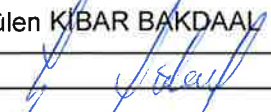

Height (mm)	Length (mm)	Width (mm)
1200	1100	1150


**Table 1.** Upper limits for package dimensions

#### 4.2. Labeling

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

Supplier's Name  
Material Name

	HAZIRLAYAN/ <i>PREPARED BY</i>	KALİTE SİSTEM ONAYI/ <i>OMS APPROVAL</i>	YÜRÜRLÜK ONAYI/ <i>ENFORCEMENT APPROVAL</i>
ÜNVANI/ <i>TITLE</i>	RD DIRECTOR	QMS Specialist	RD DIRECTOR
ADI-SOYADI/ <i>NAME-SURNAME</i>	Murat DÜNDAR	Gülen KIBAR BAKDAAL	Murat DÜNDAR
İMZA/ <i>SIGNATURE</i>			
TEDARİKÇİ ONAYI/ <i>APPROVAL OF SUPPLIER</i>			
TEDARİKÇİ ADI/ <i>SUPPLIER NAME</i>		MÜHÜR / İMZA/ <i>SIGNATURE</i>	
YETKİLİ İSİM/ <i>RESPONSIBLE</i>			
TARİH/ <i>DATE</i>			

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Net Weight

Shipping date

Production no

#### 5.0. YÜKÜMLÜLÜK/ OBLIGATION


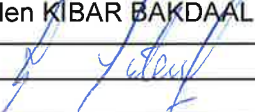

The supplier is obligated to meet the requirements indicated in this specification for each lot of materials delivered. The materials that do not comply the requirements in this specification shall be returned. ASSAN may charge all the losses originating from the master alloy itself, that does not comply the specification, to the supplier, including all the processing cost so far incurred and any charges 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.

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