



TÜRK STANDARDLARI ENSTİTÜSÜ
DENEY ve KALİBRASYON
MERKEZİ BAŞKANLIĞI
YAPI MALZEMELERİ LABORATUVARI ANKARA
MÜDÜRLÜĞÜ

TURKISH STANDARDS INSTITUTION
HEADSHIP OF TSE TEST and CALIBRATION CENTER
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405484

12-22

MUAYENE VE DENEY RAPORU
TEST REPORT

Deneyi Talep Eden/Firma : (Adı, Adresi, Şehir vb.) Requesting/Customer (Name, Address, City etc.)	EASYWALLBRİCK İNŞAAT SANAYİ VE TİCARET LİMİTED ŞİRKETİ TEPEÖREN MAH. EBUBEKİR CAD. ARTI EVLERİ NO: 40 TUZLA / İSTANBUL
Deney Talep Tarih / No : Order Date/No.	4.11.2022 / 2022-205505
Numunenin Tanımı : (Cins, Marka, Sınıf, Tip, Tür, Model vb.) Sample Description (Type, Mark, Class, Model etc.)	2022-351096, easywallbrick, easywallbrick, -, Beton kagir birim, Masonry Units, 50cm,25cm,12.5h cm, 20.00, adet
Numune Kabul Tarihi : Sample Receipt Date	29.11.2022
Deneylerin Yapıldığı Tarih : Date of Test	29.11.2022 / 15.12.2022
Uygulanan Standart Metot : Applied Standard/Method	TS EN 13820/ORGANİK MADDE MUHTEVİYATI, TS EN 1745/ISIL ÖZELLİKLER (Model P4 Çizelge+Hesaplama), TS EN 1745/SU BUHARI GEÇİRGENLİĞİ (Çizelge), TS EN 772-1/BASINÇ DAYANIMI, TS EN 772- 11/KAPILAR ETKİYLE SU EMME KATSAYISI, TS EN 772-13/BRÜT KURU BİRİM HACİM KÜTLESİ, TS EN 772-13/NET KURU BİRİM HACİM KÜTLESİ, TS EN 772-16/BİÇİM VE KONFIGÜRASYON, TS EN 772-16/BOYUTLAR VE TOLERANSLAR
Raporun Sayfa Sayısı : Number of pages of the report	9
Deney Sonucu : Test Result	-
Açıklamalar : Remarks	

Yukarıda tanımlanan numune için laboratuvarımızda yapılan muayene ve deneylerden elde edilen sonuçlar müteakip sayfalarda verilmiştir.
The testing and /or measurement results are given on the following pages which are part of this report.

Karekod QR Code	Tarih Date	Deney Sorumlusu Person in charge of test	Kontrol Eden Reviewer	Onaylayan Head of Laboratory
	15.12.2022	MURAT ÖZKURT	TALHA TEMÜR	MUSA ÇAKIR

Bu rapor, hazırlayan laboratuvarın yazılı izni olmadan kısmen kopyalanıp çoğaltılamaz. İmzasız ve karekodsuz raporlar geçersizdir. Bu rapor, sadece deneyi yapılan numune için geçerlidir ve "Ürün Belgesi" yerine geçmez.
This test report shall not be reproduced other than in full except with the written permission of the laboratory. Test reports without signature and seal are not valid.
This test report represents only tested sample(s), and shall not be used as Product Certificate.

Bu doküman elektronik ortamda imzalanmıştır.

Doğrulama adresi: <https://basvuru.tse.org.tr/uye/QRKodDogrulama?code=D91858>

Requirements	Observed	Results																																																																																																						
4 Materials The specifications of the materials to be used shall be included in the production control documentation (see 8.3). If appropriate European Standards are available, they shall be used except that aggregates need not comply with grading requirements. If not available, the manufacturer shall specify the materials and have data on their suitability.	--	--																																																																																																						
5 Requirements for aggregate concrete masonry units 5.1 General The requirements and properties specified in this European Standard shall be defined in terms of the test methods and other procedures referred to in this European Standard. NOTE A declared value may be chosen from the classification system, if any, of the place of manufacture/use of the units. It should be noted that the standard test methods are not always applicable to specially shaped and accessory units as defined in 3.1.10 and 3.1.11. The conformity criteria given in the following subclauses !relate to product type determination" (see 8.2) and, when relevant, to consignment testing (see Annex A). For the compressive strength of Category I units use a 50 % fractile (p = 0,50) for mean values or 5 % fractile (p = 0,05) for characteristic values and a confidence level of 95 %. For production evaluation, the manufacturer shall define the conformity criteria in the factory production control documentation (see 8.3).	--	--																																																																																																						
5.2 Dimensions and tolerances 5.2.1 Dimensions The manufacturer shall declare the dimensions of the aggregate concrete masonry units in mm for length, width and height, in that order (see Figure 1). They shall be given in terms of work size. Declared Length : 500,0 mm. Width : 250,0 mm. Height : 125,0 mm.	Size measurements given on item 5.2.2.	--																																																																																																						
5.2.2 Dimensional tolerances 5.2.2.1 Tolerances The tolerances on declared work sizes of individual regular shaped units shall conform to Table 1. Closer tolerances may be declared for one or more dimensions. The manufacturer shall declare the tolerance category of the units. Table 1 — Limit deviations in millimetres <table><tr><td>Tolerance category</td><td>D 1</td><td>D 2</td><td>D 3</td><td>D 4</td></tr><tr><td rowspan="2">Length</td><td>+3</td><td>+1</td><td>+1</td><td>+1</td></tr><tr><td>-5</td><td>-3</td><td>-3</td><td>-3</td></tr><tr><td rowspan="2">Width</td><td>+3</td><td>+1</td><td>+1</td><td>+1</td></tr><tr><td>-5</td><td>-3</td><td>-3</td><td>-3</td></tr><tr><td rowspan="2">Height</td><td>+3</td><td>±2</td><td>±1,5</td><td>±1,0</td></tr><tr><td>-5</td><td></td><td></td><td></td></tr></table> Tolerances for non-regular shaped and accessory units shall be as given in Table 1 or as declared by the manufacturer. These tolerances shall not apply to the dimensions between the surfaces of units which are manufactured to be non planar. If sampled in accordance with A.2 and tested in accordance with EN 772-16:2011 (method a)), the results evaluated in accordance with B.1 shall conform to the declared tolerance category.	Tolerance category	D 1	D 2	D 3	D 4	Length	+3	+1	+1	+1	-5	-3	-3	-3	Width	+3	+1	+1	+1	-5	-3	-3	-3	Height	+3	±2	±1,5	±1,0	-5				Declared: D1 500,0 mm. x 250,0 mm. x 125,0 mm. Observed n₁ = 6 results <table><tr><th>No</th><th>Length</th><th>L.Dev.</th><th>Width</th><th>W.Dev.</th><th>Height</th><th>H.Dev.</th></tr><tr><td>1</td><td>500,0</td><td>0,0</td><td>251,0</td><td>1,0</td><td>125,0</td><td>0,0</td></tr><tr><td>2</td><td>499,5</td><td>-0,5</td><td>249,5</td><td>-0,5</td><td>127,0</td><td>2,0</td></tr><tr><td>3</td><td>499,5</td><td>-0,5</td><td>250,5</td><td>0,5</td><td>125,5</td><td>0,5</td></tr><tr><td>4</td><td>500,5</td><td>0,5</td><td>250,0</td><td>0,0</td><td>126,0</td><td>1,0</td></tr><tr><td>5</td><td>500,0</td><td>0,0</td><td>250,5</td><td>0,5</td><td>126,0</td><td>1,0</td></tr><tr><td>6</td><td>500,0</td><td>0,0</td><td>250,0</td><td>0,0</td><td>126,0</td><td>1,0</td></tr><tr><td>Mean</td><td>500,0</td><td>0,0</td><td>250,5</td><td>0,0</td><td>126,0</td><td>1,0</td></tr></table> <table><tr><td>Maks.(+) Dev.</td><td>--</td><td>0,5</td><td>--</td><td>1,0</td><td>--</td><td>2,0</td></tr><tr><td>Maks. (-) Dev.</td><td>--</td><td>-0,5</td><td>--</td><td>-0,5</td><td>--</td><td>--</td></tr></table>	No	Length	L.Dev.	Width	W.Dev.	Height	H.Dev.	1	500,0	0,0	251,0	1,0	125,0	0,0	2	499,5	-0,5	249,5	-0,5	127,0	2,0	3	499,5	-0,5	250,5	0,5	125,5	0,5	4	500,5	0,5	250,0	0,0	126,0	1,0	5	500,0	0,0	250,5	0,5	126,0	1,0	6	500,0	0,0	250,0	0,0	126,0	1,0	Mean	500,0	0,0	250,5	0,0	126,0	1,0	Maks.(+) Dev.	--	0,5	--	1,0	--	2,0	Maks. (-) Dev.	--	-0,5	--	-0,5	--	--	C
Tolerance category	D 1	D 2	D 3	D 4																																																																																																				
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3	499,5	-0,5	250,5	0,5	125,5	0,5																																																																																																		
4	500,5	0,5	250,0	0,0	126,0	1,0																																																																																																		
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Mean	500,0	0,0	250,5	0,0	126,0	1,0																																																																																																		
Maks.(+) Dev.	--	0,5	--	1,0	--	2,0																																																																																																		
Maks. (-) Dev.	--	-0,5	--	-0,5	--	--																																																																																																		





Requirements	Observed	Results																																										
5.2.2.2 Flatness of bed faces When aggregate concrete masonry units are declared as tolerance category D4 for use with thin layer mortar, the manufacturer shall also declare the maximum deviation from flatness of the bed faces. If sampled in accordance with A.2 and tested in accordance with EN 772-20, the deviation from flatness of the bed faces shall not exceed the declared value.	Declared: D1 <table><tr><th>Num.</th><th>1. Diagonal mm</th><th>Flatness Deviation mm</th><th>2. Diagonal mm</th><th>Flatness Deviation mm</th><th>Surface Shape</th></tr><tr><td>1</td><td>-</td><td>-</td><td>-</td><td>-</td><td>--</td></tr><tr><td>2</td><td>-</td><td>-</td><td>-</td><td>-</td><td>--</td></tr><tr><td>3</td><td>-</td><td>-</td><td>-</td><td>-</td><td>--</td></tr><tr><td>Mean</td><td>-</td><td>--</td><td>-</td><td>--</td><td>--</td></tr><tr><td>Mean deviation</td><td>--</td><td>-</td><td>--</td><td>-</td><td>--</td></tr><tr><td>Max. Deviation</td><td>--</td><td>-</td><td>--</td><td>-</td><td>--</td></tr></table>	Num.	1. Diagonal mm	Flatness Deviation mm	2. Diagonal mm	Flatness Deviation mm	Surface Shape	1	-	-	-	-	--	2	-	-	-	-	--	3	-	-	-	-	--	Mean	-	--	-	--	--	Mean deviation	--	-	--	-	--	Max. Deviation	--	-	--	-	--	NA
Num.	1. Diagonal mm	Flatness Deviation mm	2. Diagonal mm	Flatness Deviation mm	Surface Shape																																							
1	-	-	-	-	--																																							
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Mean deviation	--	-	--	-	--																																							
Max. Deviation	--	-	--	-	--																																							
5.2.2.3 Plane parallelism of bed faces When aggregate concrete masonry units are declared as tolerance category D4 for use with thin layer mortar, the manufacturer shall also declare the maximum deviation from plane parallelism of the bed faces. If sampled in accordance with A.2 and tested in accordance with EN 772-16:2011 (method d)), the deviation from plane parallelism of the bed faces shall not exceed the declared value.	Declared: D1 <table><tr><th>Num.</th><th>1. Corner</th><th>2. Corner</th><th>3. Corner</th><th>4. Corner</th><th>Max. Diff.</th></tr><tr><td>1</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr><tr><td>2</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr><tr><td>3</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr><tr><td>Mean</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr></table>	Num.	1. Corner	2. Corner	3. Corner	4. Corner	Max. Diff.	1	-	-	-	-	-	2	-	-	-	-	-	3	-	-	-	-	-	Mean	-	-	-	-	-	NA												
Num.	1. Corner	2. Corner	3. Corner	4. Corner	Max. Diff.																																							
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2	-	-	-	-	-																																							
3	-	-	-	-	-																																							
Mean	-	-	-	-	-																																							
5.3 Configuration and appearance 5.3.1 Configuration When relevant to the uses for which aggregate concrete masonry units are put on the market, the configuration shall be declared. The declaration may be made by reference to one or another of the groups defined in EN 1996-1-1 and/or it may include one or more items such as those in the following list, as relevant:		--																																										
– shape and features, including the direction of any formed voids (by means of a drawing or illustration, when relevant);																																												
– volume of all formed voids as a percentage of the length × width × height of the unit; Declared: Upper Limit: - Lower Limit: -	<table><tr><th>No.</th><th>(%)</th></tr><tr><td>1</td><td>17,2</td></tr><tr><td>2</td><td>17,1</td></tr><tr><td>3</td><td>17,2</td></tr><tr><td>4</td><td>17,1</td></tr><tr><td>5</td><td>17,1</td></tr><tr><td>6</td><td>17,1</td></tr><tr><td>Mean</td><td>17,1</td></tr></table>	No.	(%)	1	17,2	2	17,1	3	17,2	4	17,1	5	17,1	6	17,1	Mean	17,1	ND																										
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3	17,2																																											
4	17,1																																											
5	17,1																																											
6	17,1																																											
Mean	17,1																																											
– volume of the largest of any formed voids as a percentage of the length × width × height of the unit; Declared: Upper Limit: - Lower Limit: -	<table><tr><th>No.</th><th>(%)</th></tr><tr><td>1</td><td>4,1</td></tr><tr><td>2</td><td>4,0</td></tr><tr><td>3</td><td>4,1</td></tr><tr><td>4</td><td>4,1</td></tr><tr><td>5</td><td>4,1</td></tr><tr><td>6</td><td>4,0</td></tr><tr><td>Mean</td><td>4,1</td></tr></table>	No.	(%)	1	4,1	2	4,0	3	4,1	4	4,1	5	4,1	6	4,0	Mean	4,1	ND																										
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4	4,1																																											
5	4,1																																											
6	4,0																																											
Mean	4,1																																											





Requirements	Observed	Results																								
– volume of grip holes as a percentage of the length × width × height of the unit; Declared: Upper Limit: - Lower Limit: -	<table><tr><td>No.</td><td>(%)</td></tr><tr><td>1</td><td>-</td></tr><tr><td>2</td><td>-</td></tr><tr><td>3</td><td>-</td></tr><tr><td>4</td><td>-</td></tr><tr><td>5</td><td>-</td></tr><tr><td>6</td><td>-</td></tr><tr><td>Mean</td><td>-</td></tr></table>	No.	(%)	1	-	2	-	3	-	4	-	5	-	6	-	Mean	-	ND								
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3	-																									
4	-																									
5	-																									
6	-																									
Mean	-																									
- thickness of webs; Declared: Upper Limit: - Lower Limit: -	<table><tr><td>No.</td><td>(mm)</td></tr><tr><td>1</td><td>56,2</td></tr><tr><td>2</td><td>56,4</td></tr><tr><td>3</td><td>56,2</td></tr><tr><td>4</td><td>56,2</td></tr><tr><td>5</td><td>57,0</td></tr><tr><td>6</td><td>56,4</td></tr><tr><td>Mean</td><td>56,4</td></tr></table>	No.	(mm)	1	56,2	2	56,4	3	56,2	4	56,2	5	57,0	6	56,4	Mean	56,4	ND								
No.	(mm)																									
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2	56,4																									
3	56,2																									
4	56,2																									
5	57,0																									
6	56,4																									
Mean	56,4																									
- thickness of shells; Declared: transverse lengthwise Upper Limit: - - Lower Limit: - -	<table><tr><td>No.</td><td>transverse</td><td>lengthwise</td></tr><tr><td>1</td><td>19,4</td><td>31,4</td></tr><tr><td>2</td><td>19,0</td><td>32,0</td></tr><tr><td>3</td><td>19,2</td><td>31,4</td></tr><tr><td>4</td><td>19,2</td><td>31,6</td></tr><tr><td>5</td><td>19,4</td><td>31,8</td></tr><tr><td>6</td><td>19,4</td><td>31,4</td></tr><tr><td>Mean</td><td>19,2</td><td>31,6</td></tr></table>	No.	transverse	lengthwise	1	19,4	31,4	2	19,0	32,0	3	19,2	31,4	4	19,2	31,6	5	19,4	31,8	6	19,4	31,4	Mean	19,2	31,6	ND
No.	transverse	lengthwise																								
1	19,4	31,4																								
2	19,0	32,0																								
3	19,2	31,4																								
4	19,2	31,6																								
5	19,4	31,8																								
6	19,4	31,4																								
Mean	19,2	31,6																								
- combined thickness of webs and shells from face to face; Declared: Upper Limit: - Lower Limit: -	<table><tr><td>No.</td><td>(%)</td></tr><tr><td>1</td><td>50,6</td></tr><tr><td>2</td><td>50,5</td></tr><tr><td>3</td><td>50,1</td></tr><tr><td>4</td><td>50,6</td></tr><tr><td>5</td><td>50,3</td></tr><tr><td>6</td><td>50,8</td></tr><tr><td>Mean</td><td>50,5</td></tr></table>	No.	(%)	1	50,6	2	50,5	3	50,1	4	50,6	5	50,3	6	50,8	Mean	50,5	ND								
No.	(%)																									
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4	50,6																									
5	50,3																									
6	50,8																									
Mean	50,5																									
- combined thickness of webs and shells from header to header; Declared: Upper Limit: - Lower Limit: -	<table><tr><td>No.</td><td>(%)</td></tr><tr><td>1</td><td>51,6</td></tr><tr><td>2</td><td>51,2</td></tr><tr><td>3</td><td>51,5</td></tr><tr><td>4</td><td>51,2</td></tr><tr><td>5</td><td>51,2</td></tr><tr><td>6</td><td>51,5</td></tr><tr><td>Mean</td><td>51,4</td></tr></table>	No.	(%)	1	51,6	2	51,2	3	51,5	4	51,2	5	51,2	6	51,5	Mean	51,4	ND								
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3	51,5																									
4	51,2																									
5	51,2																									
6	51,5																									
Mean	51,4																									



Requirements	Observed	Results																																										
- area of voids on a bed face as a percentage of the length × width of the unit. Declared: Upper Limit: - Lower Limit: -	<table><tr><th>No.</th><th>(%)</th></tr><tr><td>1</td><td>17,1</td></tr><tr><td>2</td><td>17,2</td></tr><tr><td>3</td><td>17,1</td></tr><tr><td>4</td><td>17,1</td></tr><tr><td>5</td><td>17,1</td></tr><tr><td>6</td><td>17,1</td></tr><tr><td>Mean</td><td>17,1</td></tr></table>	No.	(%)	1	17,1	2	17,2	3	17,1	4	17,1	5	17,1	6	17,1	Mean	17,1	ND																										
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4	17,1																																											
5	17,1																																											
6	17,1																																											
Mean	17,1																																											
- The total volume of frogs shall not exceed 20 % of the overall volume of the unit, i.e. length × width × height. Declared: Upper Limit: - Lower Limit: -	<table><tr><th>No.</th><th>(%)</th></tr><tr><td>1</td><td>-</td></tr><tr><td>2</td><td>-</td></tr><tr><td>3</td><td>-</td></tr><tr><td>4</td><td>-</td></tr><tr><td>5</td><td>-</td></tr><tr><td>6</td><td>-</td></tr><tr><td>Mean</td><td>-</td></tr></table>	No.	(%)	1	-	2	-	3	-	4	-	5	-	6	-	Mean	-	NA																										
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Mean	-																																											
5.3.2 Appearance 5.3.2.1 Flatness of surfaces of facing units When the surface of facing units are declared by the manufacturer to be plaine, they shall not deviate from a plane by more than $[0,1 \times (ld)^{0,5}]$ mm or 2 mm whichever is the greater, where ld is the length of the diagonal of the surface of the unit declared plaine, based on the actual size of the unit. The requirements for flatness shall not apply to the surfaces of units which are manufactured to be nonplanar. If sampled in accordance with A.2 and tested in accordance with EN 772-20, the results evaluated in accordance with B.2 shall comply with the value given above.	Declared: - <table><tr><th>Num.</th><th>1. Diagonal mm</th><th>Flatness Deviation mm</th><th>2. Diagonal mm</th><th>Flatness Deviation mm</th><th>Surface Shape</th></tr><tr><td>1</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr><tr><td>2</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr><tr><td>3</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr><tr><td>Mean</td><td>--</td><td>--</td><td>--</td><td>--</td><td>--</td></tr><tr><td>Mean deviation</td><td>--</td><td>--</td><td>--</td><td>--</td><td>--</td></tr><tr><td>Max. Deviation</td><td>--</td><td>--</td><td>--</td><td>--</td><td>--</td></tr></table>	Num.	1. Diagonal mm	Flatness Deviation mm	2. Diagonal mm	Flatness Deviation mm	Surface Shape	1	-	-	-	-	-	2	-	-	-	-	-	3	-	-	-	-	-	Mean	--	--	--	--	--	Mean deviation	--	--	--	--	--	Max. Deviation	--	--	--	--	--	-
Num.	1. Diagonal mm	Flatness Deviation mm	2. Diagonal mm	Flatness Deviation mm	Surface Shape																																							
1	-	-	-	-	-																																							
2	-	-	-	-	-																																							
3	-	-	-	-	-																																							
Mean	--	--	--	--	--																																							
Mean deviation	--	--	--	--	--																																							
Max. Deviation	--	--	--	--	--																																							
5.3.2.2 Surface appearance of facing units When required the surface of facing units may have compliance established on the basis of comparison with any approved samples. Comparison shall be made from a distance of 3 m in normal daylight conditions. This compliance shall be established before the units are used.	--	--																																										
5.4 Density 5.4.1 Gross dry density of the units The gross dry density of the units shall be declared in kg/m³ by the manufacturer. 5.4.3 Tolerances The mean values of the samples tested shall not deviate by more than ± 10 % from the declared values. Closer deviations may be declared. If sampled in accordance with A.2 and tested in accordance with EN 772-13, the results evaluated in accordance with B.3 shall comply with the declared values.	Declared: - <table><tr><th>No</th><th>Gross Dry Density kg/m³</th><th>% Dev.</th></tr><tr><td>1</td><td>2395</td><td>-</td></tr><tr><td>2</td><td>2350</td><td>-</td></tr><tr><td>3</td><td>2360</td><td>-</td></tr><tr><td>4</td><td>2355</td><td>-</td></tr><tr><td>5</td><td>2375</td><td>-</td></tr><tr><td>6</td><td>2370</td><td>-</td></tr><tr><td>Mean</td><td>2370</td><td>-</td></tr></table>	No	Gross Dry Density kg/m ³	% Dev.	1	2395	-	2	2350	-	3	2360	-	4	2355	-	5	2375	-	6	2370	-	Mean	2370	-	NA																		
No	Gross Dry Density kg/m ³	% Dev.																																										
1	2395	-																																										
2	2350	-																																										
3	2360	-																																										
4	2355	-																																										
5	2375	-																																										
6	2370	-																																										
Mean	2370	-																																										





Requirements	Observed	Results																																																
5.4.2 Net dry density of the concrete When relevant to the uses for which the unit is put on the market, the manufacturer shall declare the net dry density of the concrete units in kg/m3. 5.4.3 Tolerances The mean values of the samples tested shall not deviate by more than ± 10 % from the declared values. Closer deviations may be declared. If sampled in accordance with A.2 and tested in accordance with EN 772-13, the results evaluated in accordance with B.3 shall comply with the declared values.	Declared: - <table><tr><th>No</th><th>Gross Dry Density kg/m³</th><th>% Dev.</th></tr><tr><td>1</td><td>2895</td><td>-</td></tr><tr><td>2</td><td>2835</td><td>-</td></tr><tr><td>3</td><td>2850</td><td>-</td></tr><tr><td>4</td><td>2840</td><td>-</td></tr><tr><td>5</td><td>2865</td><td>-</td></tr><tr><td>6</td><td>2860</td><td>-</td></tr><tr><td>Mean</td><td>2860</td><td>-</td></tr></table>	No	Gross Dry Density kg/m³	% Dev.	1	2895	-	2	2835	-	3	2850	-	4	2840	-	5	2865	-	6	2860	-	Mean	2860	-	NA																								
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4	2840	-																																																
5	2865	-																																																
6	2860	-																																																
Mean	2860	-																																																
5.5 Mechanical strength 5.5.1 Compressive strength 5.5.1.1 General The strength of the masonry units in compression shall be declared in N/mm² by the manufacturer (declared value, see 3.1.18). The declared value shall be either the characteristic 5 % fractile f _c or the mean 50 % fractile f _m compressive strength of the units. In addition, the manufacturer shall declare: - whether the aggregate concrete masonry unit is Category I or Category II (see ZA.2); - the normalized compressive strength when relevant. NOTE EN 772-1 gives instructions on how to convert the declared compressive strength into the normalized compressive strength. If sampled in accordance with A.2 and tested in accordance with EN 772-1, the results, evaluated in accordance with B.4.1 for characteristic strength or B.4.2 for mean strength, shall be not less than the declared value. The declaration shall relate to and indicate the orientation(s) of the units as tested, the method(s) of bedding the units and whether any voids present are intended to be fully filled with mortar. The manufacturer shall declare the conditioning regime and the surface preparation used. When the units are conditioned in accordance with 7.3.5, the results shall be brought to the air dry condition in accordance with EN 772-1:2011, Annex A. Whole units or parts of units may be tested in an orientation other than the orientation of normal use of the units, provided there is adequate correlation between the direction of testing and of use.	Firma Beyanları Category Class: Category - Compressive strength : - Declaration basis : Characteristic <table><tr><th>No</th><th colspan="3">Sample Size (mm)</th><th>Load (kN)</th><th>Compressive strength (N/mm²)</th></tr><tr><td>1</td><td>250,0</td><td>x</td><td>170,0</td><td>1124,76</td><td>26,5</td></tr><tr><td>2</td><td>251,0</td><td>x</td><td>170,5</td><td>1138,70</td><td>26,6</td></tr><tr><td>3</td><td>250,0</td><td>x</td><td>171,0</td><td>1155,62</td><td>27,0</td></tr><tr><td>4</td><td>250,0</td><td>x</td><td>170,0</td><td>1214,40</td><td>28,6</td></tr><tr><td>5</td><td>250,0</td><td>x</td><td>170,0</td><td>1088,60</td><td>25,6</td></tr><tr><td>6</td><td>251,0</td><td>x</td><td>170,5</td><td>1134,20</td><td>26,5</td></tr><tr><td>Mean</td><td>-</td><td>x</td><td>-</td><td>--</td><td>26,8</td></tr></table> Surface preparation Surface preparation method: M7.2.4 Grinding Sample Conditioning: air dry condition Loading: bedded surface *The ratio of the sum of the void areas in the slab surface area of the whole masonry to the slab surface area (~17%) was preserved from the samples as 250x170mm. The piece was cut and tested.	No	Sample Size (mm)			Load (kN)	Compressive strength (N/mm²)	1	250,0	x	170,0	1124,76	26,5	2	251,0	x	170,5	1138,70	26,6	3	250,0	x	171,0	1155,62	27,0	4	250,0	x	170,0	1214,40	28,6	5	250,0	x	170,0	1088,60	25,6	6	251,0	x	170,5	1134,20	26,5	Mean	-	x	-	--	26,8	NA
No	Sample Size (mm)			Load (kN)	Compressive strength (N/mm²)																																													
1	250,0	x	170,0	1124,76	26,5																																													
2	251,0	x	170,5	1138,70	26,6																																													
3	250,0	x	171,0	1155,62	27,0																																													
4	250,0	x	170,0	1214,40	28,6																																													
5	250,0	x	170,0	1088,60	25,6																																													
6	251,0	x	170,5	1134,20	26,5																																													
Mean	-	x	-	--	26,8																																													
5.5.1.2 Testing of specimens cut from units Units which cannot be conveniently tested whole, may be sawn into test specimens having the same w to h ratio as the original unit, provided that the specimen length as tested is not less than the value of h of the specimen. Sawn test specimens shall be representative of the original unit section. The value of h of any sawn specimen shall be not less than 100 mm. If the value h of a sawn specimen is less than one half the height of the original unit, then specimens shall be sampled from both the upper and lower parts of the original unit. A sketch indicating the relationship between the cut specimen and the whole unit shall be included in the test report.	*The ratio of the sum of the void areas in the slab surface area of the whole masonry to the slab surface area (~17%) was preserved from the samples as 250x170mm. The piece was cut and tested.	--																																																





Requirements	Observed	Results										
5.6 Thermal properties When relevant to the uses for which the units are put on the market and in all cases for masonry units intended to be used in elements subject to thermal insulation requirements, the manufacturer shall provide the mean $\lambda_{10,dry,unit}$ -value and the determination model as prescribed in EN 1745 or alternatively give gross dry density (5.4.1) or net dry density (5.4.2) and configuration (5.3.1). Additionally another fractile may be provided. In such cases both the additional fractile and the corresponding $\lambda_{10,dry,unit}$ -value shall be given. When the aggregate concrete masonry units are sampled in accordance with Annex A and tested in accordance with EN 1745 following the model provided, then the obtained λ -value of the specified number of aggregate concrete masonry units shall be not greater than the provided λ -value. When relevant to the use for which the units are put on the market, the value of specific heat capacity given in EN 1745 may be provided. Declared: $\lambda_{10,dry,unit}$ = -	$\lambda_{10,dry,unit}$: 1,786 W/m.K Calculated in accordance with TS EN 1745 Model P4. for: d: 2860kg/m ³ - $\lambda_{10,dry,mat}$: 2,363W/mK (found by interpolation method from TS EN 1745 Table A.3.)	NA										
5.7 Durability When relevant to the uses for which the units are put on the market, the manufacturer shall evaluate and declare the freeze/thaw resistance of the units by reference to the provisions valid in the intended place of use of the units until an appropriate European Standard is available. NOTE When the intended use of the product provides a complete protection against water penetration (e.g. A suitable layer of render, cladding, inner leaf of a cavity wall, internal walls), no reference to freeze/thaw resistance is required.	--	-										
5.8 Water absorption by capillarity When relevant to the uses for which units are put on to the market and in all cases for units intended to be used in exposed external elements (see 3.1.4), the manufacturer shall declare in g/m2s the maximum water absorption coefficient due to capillary action of the exposed face of the unit. If sampled in accordance with A.2 and tested in accordance with EN 772-11 for an immersion time of (10 ± 0,2) min, the results evaluated in accordance with B.5 shall be no more than the declared value. Declared: C_{ws} : -	<table><tr><th>Num.</th><th>C_{ws} g/m²s</th></tr><tr><td>1</td><td>0,28</td></tr><tr><td>2</td><td>0,31</td></tr><tr><td>3</td><td>0,30</td></tr><tr><td>Mean</td><td>0,3</td></tr></table>	Num.	C_{ws} g/m ² s	1	0,28	2	0,31	3	0,30	Mean	0,3	NA
Num.	C_{ws} g/m ² s											
1	0,28											
2	0,31											
3	0,30											
Mean	0,3											
5.9 Moisture movement When relevant to the uses for which the unit is put on the market and in all cases for units intended to be used in elements subject to structural requirements, the moisture movement (shrinkage and expansion) of units shall be declared by the manufacturer. If sampled in accordance with A.2 and tested in accordance with EN 772-14, the results evaluated in accordance with Clause B.5 shall be no more than the declared value.	Declared: non-structural	NR										



Requirements	Observed	Results
5.10 Water vapour permeability When relevant to the uses for which the masonry unit is put on the market and in all cases for units intended to be used in external elements, the manufacturer shall provide information on the water vapour permeability through the water vapour diffusion coefficient tabulated values given in EN 1745 or determined in accordance with EN ISO 12572. Declared: μ : -	TS EN 1745 According to A.3 μ : 50/150	NA
5.11 Reaction to fire For units intended to be used in elements subject to fire requirements the manufacturer shall declare the reaction to fire classification of the masonry unit. For masonry units containing a mass or volume fraction of $\leq 1,0$ % (whichever is the most onerous) of homogeneously distributed organic materials the declaration may be fire Class A1 without the need to test. Masonry units containing a mass or volume fraction of $> 1,0$ % (whichever is the most onerous) of homogeneously distributed organic materials shall be classified in accordance with EN 13501-1 and the appropriate reaction to fire class declared. Information on reaction to fire class of supplementary insulating material shall be given on the basis of European Standards as declared by the supplier of the insulating material. NOTE Attention is drawn to the Commission Decision 96/603/EC, as amended by Commission Decision 2000/605/EC, in which non-combustible masonry units containing not more than a mass or volume fraction of 1,0 % (whichever is the more onerous) of homogeneously distributed organic materials are classified as reaction to fire Class A1 without testing. Declared: --	Organic Content % 0,3 Since the organic matter content is below 1.0%, it is in the A1 class.	NA
5.12 Shear bond strength 5.12.1 General For aggregate concrete masonry units intended to be used in elements subjected to structural requirements, the shear bond strength of the unit in combination with mortar shall be declared in terms of the characteristic initial shear strength in accordance with EN 1052-3. The declaration may be made either on the basis of fixed values as in 5.12.2 or tests as in 5.12.3. The manufacturer shall declare whether the value of bond strength has been obtained from the fixed values or from test. Declared: non-structural General purpose rendering: - One-coat rendering: -	TS EN 998-2 EK C'ye göre General purpose ve Lightweight rendering: - One-coat rendering: -	NR
5.13 Flexural bond strength When relevant for the intended place of use and the intended application, the flexural bond strength of units and mortar shall be declared. The declaration shall give the characteristic flexural strength of the masonry either in the plane of failure perpendicular to the bed joints or the plane of failure parallel to the bed joints or both, as relevant together with the mortar and unit specification for which the declaration is valid. When aggregate concrete masonry units are sampled in accordance with Annex A and tested in accordance with EN 1052-2, the characteristic flexural strength shall not be less than the value declared. Declared: --	Declared: non-structural	NR



Requirements	Observed	Results
6 Description, designation and classification of aggregate concrete masonry units 6.1 Description and designation of units The description and designation of an aggregate concrete masonry unit shall comprise at least the following: a) number and date of issue of this European Standard; b) type of unit (see Clause 3); c) work size dimensions and tolerance category (see 5.2); d) compressive or bending tensile strength (where appropriate, see 5.5); e) configuration and appearance (see 5.3). When relevant to the uses for which the units are put on the market, the description and designation may include: f) gross dry density (see 5.4.1); g) net dry density declared for the concrete, (see 5.4.2); h) coordinating size (see 5.2.1); i) moisture movement (see 5.9); j) thermal properties (see 5.6); k) other properties.	-	-
6.2 Classification Specification of the properties of the units may be given by reference to classification systems provided those systems are based only on single properties included in this European Standard and do not themselves constitute a barrier to trade. This does not remove the requirement that all manufacturers claiming compliance with this European Standard shall state declared values of the properties of their products, when required.	-	-
7 Marking The following particulars shall be clearly marked on one of the following: the packaging, the delivery note, any certificate supplied with the masonry units, or 5 % of the units with a minimum of 4 per pack: a) the name, trademark or other means of identification of the manufacturer; b) means of identifying the date of manufacture of the units; c) means of identifying the units and relating them to their description and designation.	-	-

NOTE:

- * This test is not requested (NR)
- * This test is not applicable for this sample (NA)
- * This test could not be done with the capability of the laboratory (X)
- * This test is not evaluated since declaration/conditions are not stated (ND)
- * This test is not done due to the breakdown of the equipment (EB)
- * This result complies with the stated condition(s) (C)
- * This result does not comply with the stated condition(s)

