EUROLAB® Laboratory Services

TEST / INSPECTION REPORT

EUROLAB LABORATORY SERVICES

TÜRCERT TEKNİK KONTROL VE BELGELENDİRME A.Ş.

UNITED ACCREDITATION FOUNDATION UAF

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2020062931

Test Result :	**B, S1, d0**
Report No :	2020062931
Applicant :	**AGENCIA DE ENERGIA ALTERNATIVA 2020SL**
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Sample ID :	**IRON**

	TEST	METHOD	RESULT		
*	**Fire classification of construction products and building elements- Part 1: Classification using test data from reaction to fire tests.**	**EN 13501-1**	**PASS**		
			B	**S_1**	**d_0**

Results: Flame spread is not very flammable, no melt droplets, no smoke formation.

TÜRCERT TEKNİK KONTROL VE BELGELENDİRME A.Ş. TÜRCERT

Seal

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EUROLAB ® (TÜRCERT TEKNİK KONTROL VE BELGELENDİRME A.Ş.)

Environment

The requirements and standards apply to equipment intended for use in:

X	Residential (domestic) environment
X	Commercial and light-industrial environment
X	Industrial environment
X	Medical environment

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RESULTS

1.TS EN ISO 13501-1

Building products and structural elements, fire classification. Part 1: Classification by using data obtained from the behavior tests against fire.

This standard covers the behavior of all building products, including products used in combination with structural elements, against flame.

Provisions for Inspection and Test:

If Rule / Test Is Not Needed To Be Applied To Sample (Not Applicable To Sample)	NU
If the Specimen Fits the Rules (Passed)	P
If the Specimen Tested Does Not Comply with the Rules (Left)	K
If there is a Rule / Experiment Not Applied for Any Reason (Unable)	Y

Sample No	1	2	3	4
Fammability (Yes/No)	No	No	No	No
Whether the flame is spread (Yes/No)	No	No	No	No
Flame Spreading Time	-	-	-	-
Combustion on Filter Paper (Yes/No)	No	No	No	No
RESULT				

Observations There was no dripping, melting or spreading in the flame. The filter paper did not burn.

Related Product Standard and Citations: Fire Response Test (**EN 13501-1 B** Class) **Conditioning Details:** The test samples were conditioned at 23 ± 2 ° C and 50 ± 5% relative humidity at EN 13238 according to 4.3 C..	
Class *B* (TS EN ISO 13501-1 Clause 8.3)	For the determination of conformity to Class *B*, use a product, the time of exposure to flame according to TS EN 13501-1
Test Sample	Length -- mm , Width -- mm , Thickness — mm
Exposure Requirements	**Surface exposed to flame**

"The result of this experiment is related to the behavior of the test specimen of a product under the special conditions in which the test is applied; Not a single criterion for assessing the potential fire hazard of a product under actual use. "

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Reaction to fire

The combustion class (Euroclasses) of the product must be determined in accordance with EN 13501-1.

TS EN 13501-1 - Flammibility Test (TS EN ISO 1182)

This test is carried out to determine whether a contribution to a fire is significant, regardless of the end use of a product.

Material	Rule / Test	Result / Evalution	Decision
5	**Test sample**		
	----	---	**PASS**
6	**Conditioning**		
	Test samples shall be conditioned as specified in EN 13238. The test samples should be dried and tested for 20 hours to 24 hours in an air-circulating oven with a temperature of (60 ± 5) ° C. it must be allowed to cool to ambient temperature in a desiccator before being held. The mass of each sample should be determined with a sensitivity of 0.01 g before the experiment.	Conditioning Time: 1 week Conditioning Temperature: 23 ± 2 ° C Conditioning Humidity: 50 ± 5% *EN 13238 4.3 Conditioning for fixed period a) Minimum conditioning period of one weeks:* *2) cement based products;*	**PASS**

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Classification of **IRON** according to TS EN 13501-1 according to the behavior against fire:

B

Test method	Parameter	Number of tests	Mean of continuous parameter	Results Suitable parameter
TS EN 13823	$FIGRA_{0,2MJ}$ (W/s)	3	80	≤120
	LFS > side	3	(-)	No
	THR_{600s}(MJ)	3	4,1	≤7,5
	SMOGRA (m^2/s^2)	3	18	≤30
	TSP_{600s} (m)	3	32	≤50
	Drops and droplets (s)	3	(-)	No

(-): Not applicable
(1) Exposure of the surface to flame
(2): Exposure of the edge to flame (c) EN 14509: 2014 standard C.1.2.2.a)

Test method	Parameter	Parameter	Compliance criteria
TS EN 13823	$FIGRA_{0.2\ MJ}$ [W/s]	80	≤120 (B)
	THR_{600s} (MJ)	4,1	≤7,5 (B)
	LFS < side	(-)	No
	SMOGRA [m^2/s^2]	18	≤30 (S_1)
	TSP_{600s} [m]	32	≤50 (S_1)
	burning drops / particles burning time (s)	No	No (d_0)
(-): Not applicable			

Classification of Air Duct based on fire behavior:

B

Additional classification for smoke formation:

S_1

Additional classification for burning drops / beads:

d_0

***Reaction to fire for* IRON**

Flammability Behavior		Smoke			Burning Drops	
B	-	s	1	-	d	0

***** End of Report *****

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