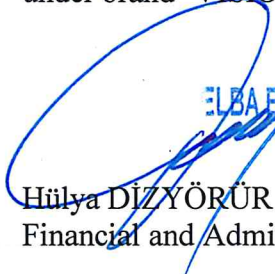


09.01.2018

SELLING AUTHORIZATION

We, ELBA BASINCLI DOKUM SANAYII A.S. Manisa / TURKEY authorize ROMSTAL IMEX S.R.L., Bucharest / ROMANIA a their distributors to sell our “Steel Panel Radiators” under brand ‘VISION, ECORAD, HABITAT and PREMIUM’ in the territory of ROMANIA.


Hülya DİZYÖRÜR
Financial and Administrative Manager


M. Kemal ÇINARCIK
Maintenance Manager

DK/ss 2018/042



KALİTE YÖNETİM SİSTEMİ BELGESİ

QUALITY MANAGEMENT SYSTEM CERTIFICATE



TÜRK STANDARDLARI ENSTİTÜSÜ
bu belge ile

ELBA BASINÇLI DÖKÜM SAN. A.Ş.
MERKEZ : MANİSA OSB 1. KISIM KEÇİLİKÖY OSB MAH.
50. YIL CAD. NO:15 45030 YUNUSEMRE - MANİSA
FABRİKA : MANİSA OSB III. KISIM KEÇİLİKÖY OSB MAH.
MUSTAFA ÇAPRA CAD. NO:8 45030 YUNUSEMRE -
MANİSA / TÜRKİYE

kuruluşunun TS EN ISO 9001:2015 şartlarına uygun bir KALİTE
YÖNETİM SİSTEMİNE sahip olduğunu onaylar.

Belge kapsamı Ek'te verilmiştir



Bu belge belgelendirme şartlarına
uygunluk sağlandığı sürece geçerlidir.



TÜRK STANDARDLARI ENSTİTÜSÜ
TURKISH STANDARDS INSTITUTION

SİSTEM BELGELENDİRME GRUP BAŞKANI
HEAD of SYSTEM CERTIFICATION GROUP

GÖKCEN BİRCAN DEĞERLİYURT

Türk Standardları Enstitüsü Türk Akreditasyon Kurumu TÜRKAK tarafından akredite edilmiştir.
Turkish Standards Institution, has been accredited by the Turkish Accreditation Agency TÜRKAK.

TURKISH STANDARDS INSTITUTION
hereby certifies that the organization

ELBA BASINÇLI DÖKÜM SAN. A.Ş.
MERKEZ : MANİSA OSB 1. KISIM KEÇİLİKÖY OSB MAH.
50. YIL CAD. NO:15 45030 YUNUSEMRE - MANİSA
FABRİKA : MANİSA OSB III. KISIM KEÇİLİKÖY OSB MAH.
MUSTAFA ÇAPRA CAD. NO:8 45030 YUNUSEMRE -
MANİSA / TÜRKİYE

has a QUALITY MANAGEMENT SYSTEM which fulfills
the requirements of the TS EN ISO 9001:2015

Scope of the certificate is given in annex

Belge No / Certificate No

KY-457-02/KG-97/10-R15

Belge Tarihi / Date of Certificate

14.02.2019

Geçerlilik Tarihi / Valid Until

14.02.2022

Revizyon Tarihi / Date of Revision

14.02.2019

İlk Belge Tarihi / Initial Certification Date

24.01.1997

This certificate is valid provided that compliance
with the certification requirement is maintained.



KALİTE YÖNETİM SİSTEMİ BELGESİ

QUALITY MANAGEMENT SYSTEM CERTIFICATE

EK / APPENDIX



Belge No / Certificate No: **KY-457-02/KG-97/10-R15**

Belgeli Kuruluş Adı, Adresi:

Name and Address of the Certified Organization:

Belge Kapsamı:

TS EN ISO 9001:2015

ÇELİK SAÇTAN MAMÜL PANEL RADYATÖR

TASARIM VE ÜRETİMİ

Belge Tarihi / Date of Certificate: **14.02.2019**

ELBA BASINÇLI DÖKÜM SAN. A.Ş.
MERKEZ : MANİSA OSB 1. KISIM KEÇİLİKÖY OSB MAH.
50. YIL CAD. NO:15 45030 YUNUSEMRE - MANİSA
FABRİKA : MANİSA OSB III. KISIM KEÇİLİKÖY OSB MAH.
MUSTAFA ÇAPRA CAD. NO:8 45030 YUNUSEMRE -
MANİSA / TÜRKİYE

Scope of the Certificate:

TS EN ISO 9001:2015

DESIGN AND PRODUCTION OF

**PANEL RADIATORS MANUFACTURED FROM
STEEL SHEET**





ÇEVRE YÖNETİM SİSTEMİ BELGESİ

ENVIRONMENTAL MANAGEMENT SYSTEM CERTIFICATE



TÜRK STANDARDLARI ENSTİTÜSÜ bu belge ile

ELBA BASINÇLI DÖKÜM SAN. A.Ş.
MERKEZ : MANİSA OSB 1. KISIM KEÇİLİKÖY OSB MAH.
50. YIL CAD. NO:15 45030 YUNUSEMRE - MANİSA
FABRİKA : MANİSA OSB III. KISIM KEÇİLİKÖY OSB MAH.
MUSTAFA ÇAPRA CAD. NO:8 45030 YUNUSEMRE -
MANİSA / TÜRKİYE

kuruluşunun TS EN ISO 14001:2015 şartlarına uygun bir ÇEVRE
YÖNETİM SİSTEMİNE sahip olduğunu onaylar.

Belge kapsamı Ek'te verilmiştir



TURKISH STANDARDS INSTITUTION
hereby certifies that the organization

ELBA BASINÇLI DÖKÜM SAN. A.Ş.
MERKEZ : MANİSA OSB 1. KISIM KEÇİLİKÖY OSB MAH.
50. YIL CAD. NO:15 45030 YUNUSEMRE - MANİSA
FABRİKA : MANİSA OSB III. KISIM KEÇİLİKÖY OSB MAH.
MUSTAFA ÇAPRA CAD. NO:8 45030 YUNUSEMRE -
MANİSA / TÜRKİYE

has an ENVIRONMENTAL MANAGEMENT SYSTEM
which fulfills the requirements of the TS EN ISO 14001:2015

Scope of the certificate is given in annex

SİSTEM BELGELENDİRME GRUP BAŞKANI
HEAD of SYSTEM CERTIFICATION GROUP

Gökçen Bircan Değerliyurt
GÖKÇEN BİRCAN DEĞERLİYURT

Türk Standartları Enstitüsü Türk Akreditasyon Kurumu TÜRKAK tarafından akredite edilmiştir.
Turkish Standards Institution, has been accredited by the Turkish Accreditation Agency TÜRKAK.

Bu belge belgelendirme şartlarına
uygunluk sağlandığı sürece geçerlidir.

Belge No / Certificate No

ÇY-117-06/04-R15

Belge Tarihi / Date of Certificate

19.02.2018

Geçerlilik Tarihi / Valid Until

12.02.2021

Revizyon Tarihi / Date of Revision

19.02.2018

İlk Belge Tarihi / Initial Certification Date

09.01.2004

This certificate is valid provided that compliance
with the certification requirement is maintained.

062102201811590001



ÇEVRE YÖNETİM SİSTEMİ BELGESİ

ENVIRONMENTAL MANAGEMENT SYSTEM CERTIFICATE

EK / APPENDIX



Belge No / Certificate No: ÇY-117-06/04-R15

Belgeyi Kuruluş Adı, Adresi:

Name and Address of the Certified Organization:

Belge Kapsamı:

TS EN ISO 14001:2015

ÇELİK SAÇTAN MAMÜL PANEL RADYATÖR

TASARIM VE ÜRETİMİ

Belge Tarihi / Date of Certificate: 19.02.2018

ELBA BASINÇLI DÖKÜM SAN. A.Ş.
MERKEZ : MANISA OSB I. KISIM KEÇİLİKÖY OSB MAH.
50. YIL CAD. NO:15 45030 YUNUSEMRE - MANISA
FABRİKA : MANISA OSB III. KISIM KEÇİLİKÖY OSB MAH.
MUSTAFA ÇAPRA CAD. NO:8 45030 YUNUSEMRE -
MANISA / TÜRKİYE

Scope of the Certificate:

TS EN ISO 14001:2015

DESIGN AND PRODUCTION OF

PANEL RADIATORS MANUFACTURED FROM
STEEL SHEET





CONSTRUCTION PRODUCTS REGULATION
DECLARATION OF PERFORMANCE (Reg. No:305/2011/EU)
Issue Date: 01.08.2013 Document No: F-KGSF-029 Rev. No: 01 Rev Date:05.12.2013

Description:	Panel Radiators
Model:	TYPE 10
Intended Use:	Radiators for connection to and use within a hydronic sealed central heating system
Manufacturer:	ELBA Basıncılı Döküm AŞ. Manisa Organize Sanayi Bölgesi 50.Yıl Caddesi No:15 Manisa
Representative:	ROMSTAL IMEX
Trade Mark	ELBA, ECORAD, PREMIUM
Additional Information	---
System of Assessment & Verification of Constancy of Performance:	System 3: All products in different ELBA production site, produced according to the same technical specifications use the same production methods and materials, fulfil the same requirement of quality
Harmonised Standards:	EN 442 - 1 : 1998 / EN 442 - 2 : 1998 / EN 442 - 3 : 2007

Essential Characteristics	Performance	Declaration	Notified Bodies
EN 442 - 1 : 1998 Durability Test	100 Hour Humidity Test	PASS	Turkish Standards Institution (TSE) Notified Body 1783
EN 442 - 1 : 1998 Reaction to Fire	Class A1	PASS	Turkish Standards Institution (TSE) Notified Body 1783
EN 442 - 1 : 1998 Strength Pressure Test	Leak Test : 1300 kPa Strength Pressure Test: 1690 kPa Declared Max. Working Pressure: 1000 kPa	PASS	Centre Technique des Industries Aerauliques et Thermiques (CETIAT) Notified Body 1623
EN 442 - 1 : 1998 Thermal Output Test	Thermal Output Characteristic Equations (L = length in metres)		Centre Technique des Industries Aerauliques et Thermiques (CETIAT) Notified Body 1623
Type 10	$\Delta T 50^{\circ}C$ Watt/m Kcal/hm	$\Delta T 60^{\circ}C$ Watt/m Kcal/hm	n K _m
300	332 286	423 364	1,3255 1,858461
400	436 375	554 476	1,3121 2,571982
500	537 462	680 585	1,2987 3,338274
600	633 544	800 688	1,2853 4,146843
700	725 624	917 789	1,2907 4,650262
800	813 699	1030 886	1,2961 5,105703
900	896 771	1136 977	1,3015 5,509327

Date: 02.01.2015

Signed for and on behalf of the manufacturer by;

ELBA BASINÇLI DÖKÜM SANAYİ A.Ş.



CONSTRUCTION PRODUCTS REGULATION
DECLARATION OF PERFORMANCE

Issue Date: 01.08.2013 Document No: F-KGSF-029 Rev. No: 00 Rev Date: '- -

Description:	Panel Radiators
Model:	Type 11 (PK)
Intended Use:	Radiators for connection to and use within a hydronic sealed central heating system
Manufacturer:	ELBA Basınçlı Döküm AŞ. Manisa Organize Sanayi Bölgesi 50.Yıl Caddesi No:15 Manisa
Representative:	Romstal Imex SRL Romania
Trade Mark	ELBA - ECCORAD - PREMIUM
Additional Information	The radiators has a 'R' stamp on the side covers.
System of Assessment & Verification of Constancy of Performance:	System 3: All products in different ELBA production site, produced according to the same technical specifications use the same production methods and materials, fulfil the same requirement of quality
Harmonised Standards:	EN 442 - 1 :1998 / EN 442 - 2 : 1998 / EN 442 - 3 : 2007
Notified Bodies:	CETIAT 25 avenue des arts BP 2042 69603 Villeurbanne cedex France Report no : 1623 BU 022 - V2

Essential Characteristics			Performance				
EN 442 - 1 : 1998 Durability Test			100 Hour Humidity Test		PASS	Turkish Standards Instituion (TSE) Notified Body 1783	
EN 442 - 1 : 1998 Reaction to Fire			Class A1		PASS	Turkish Standards Instituion (TSE) Notified Body 1783	
EN 442 - 1 : 1998 Strength Pressure Test			Leak Test : 1300 kPa Strength Pressure Test: 1690 kPa Declared Max. Working Pressure: 1000 kPa		PASS	Centre Technique des Industries Aerauliques et Thermiques (CETIAT) Notified Body 1623	
EN 442 - 1 : 1998 Thermal Output Test			Thermal Output Characteristic Equations (L = length in metres)			Centre Technique des Industries Aerauliques et Thermiques (CETIAT) Notified Body 1623	
Heights	ΔT 50° C		ΔT 60° C		n	K _M	Φ
	Watt/m	Kcal/hm	Watt/m	Kcal/hm			
300	558	480	703	605	1,2631	3,990000	Φ=K _m .ΔT ⁿ
400	722	621	916	788	1,2960	4,542272	
500	876	753	1108	953	1,2890	5,656291	
600	1026	882	1296	1115	1,2802	6,858000	
700	1151	990	1454	1250	1,2770	7,795927	
800	1280	1101	1615	1389	1,2700	8,909580	
900	1401	1205	1777	1529	1,3047	8,507900	

Date: 02.01.2015

Signed for and on behalf of the manufacturer by;

ELBA BASINÇLI DÖKÜM SANAYİ A.Ş.



CONSTRUCTION PRODUCTS REGULATION
DECLARATION OF PERFORMANCE

Issue Date: 01.08.2013 Document No: F-KGSF-029 Rev. No: 00 Rev Date: -

Description:	Panel Radiators
Model:	Type 19 (PP)
Intended Use:	Radiators for connection to and use within a hydronic sealed central heating system
Manufacturer:	ELBA Basınçlı Döküm AŞ. Manisa Organize Sanayi Bölgesi 50.Yıl Caddesi No:15 Manisa
Representative:	Romstal Imex SRL Romania
Trade Mark	ELBA - E.C.A. - ECORAD - PREMIUM
Additional Information	The radiators has a 'R' stamp on the side covers.
System of Assessment & Verification of Constancy of Performance:	System 3: All products in different ELBA production site, produced according to the same technical specifications use the same production methods and materials, fulfil the same requirement of quality
Harmonised Standards:	EN 442 - 1 :1998 / EN 442 - 2 : 1998 / EN 442 - 3 : 2007
Notified Bodies:	Politecnico Di Milano Dipartimento Di Energia Laboratoria Misure Ricerche Termotecniche M.R.T. Via Raffaele Lambruschini, 4 (Zona Bovisa) - 20156 Milano ITALY No: ENE/MRT.EEC.11009

Essential Characteristics			Performance				
EN 442 - 1 : 1998 Durability Test			100 Hour Humidity Test		PASS	Turkish Standards Instituion (TSE) Notified Body 1783	
EN 442 - 1 : 1998 Reaction to Fire			Class A1		PASS	Turkish Standards Instituion (TSE) Notified Body 1783	
EN 442 - 1 : 1998 Strength Pressure Test			Leak Test : 1300 kPa Strength Pressure Test: 1690 kPa Declared Max. Working Pressure: 1000 kPa		PASS	Centre Technique des Industries Aerauliques et Thermiques (CETIAT) Notified Body 1623	
EN 442 - 1 : 1998 Thermal Output Test			Thermal Output Characteristic Equations (L = length in metres)			Centre Technique des Industries Aerauliques et Thermiques (CETIAT) Notified Body 1623	
Heights	ΔT 50° C		ΔT 60° C		n	K _M	Φ
	Watt/m	Kcal/hm	Watt/m	Kcal/hm			
300	619	532	783	674	1,2913	3,961053	Φ=K _m .ΔT ⁿ
400	780	671	987	849	1,2904	5,008916	
500	932	802	1179	1014	1,2895	6,006121	
600	1075	925	1360	1169	1,2886	6,952095	
700	1212	1042	1535	1320	1,2946	7,656249	
800	1344	1156	1704	1465	1,3006	8,293138	
900	1470	1264	1865	1604	1,3066	8,860192	

Date: 02.01.2015

Signed for and on behalf of the manufacturer by:

ELBA BASINÇLI DÖKÜM SANAYİ A.Ş.



CONSTRUCTION PRODUCTS REGULATION
DECLARATION OF PERFORMANCE

Issue Date: 01.08.2013 Document No: F-KGSF-029 Rev. No: 00 Rev Date: '- -

Description:	Panel Radiators					
Model:	Type 21 (PKP)					
Intended Use:	Radiators for connection to and use within a hydronic sealed central heating system					
Manufacturer:	ELBA Basınçlı Döküm AŞ. Manisa Organize Sanayi Bölgesi 50.Yıl Caddesi No:15 Manisa					
Representative:	Romstal Imex SRL Romania					
Trade Mark	ELBA - ECCORAD - PREMIUM					
Additional Information	The radiators has a 'R' stamp on the side covers.					
System of Assessment & Verification of Constancy of Performance:	System 3: All products in different ELBA production site, produced according to the same technical specifications use the same production methods and materials, fulfil the same requirement of quality					
Harmonised Standards:	EN 442 - 1 :1998 / EN 442 - 2 : 1998 / EN 442 - 3 : 2007					
Notified Bodies:	CETIAT 25 avenue des arts BP 2042 69603 Villeurbanne cedex France Report no : 1623 BU 023 - V2					
Essential Characteristics	Performance					
EN 442 - 1 : 1998 Durability Test	100 Hour Humidity Test		PASS		Turkish Standards Institution (TSE) Notified Body 1783	
EN 442 - 1 : 1998 Reaction to Fire	Class A1		PASS		Turkish Standards Institution (TSE) Notified Body 1783	
EN 442 - 1 : 1998 Strength Pressure Test	Leak Test : 1300 kPa Strength Pressure Test: 1690 kPa Declared Max. Working Pressure: 1000 kPa		PASS		Centre Technique des Industries Aerauliques et Thermiques (CETIAT) Notified Body 1623	
EN 442 - 1 : 1998 Thermal Output Test	Thermal Output Characteristic Equations (L = length in metres)				Centre Technique des Industries Aerauliques et Thermiques (CETIAT) Notified Body 1623	
Heights	$\Delta T 50^{\circ} C$		$\Delta T 60^{\circ} C$		n	K _M
	Watt/m	Kcal/hm	Watt/m	Kcal/hm		
300	778	669	983	846	1,2833	5,138600
400	998	858	1267	1090	1,3210	5,674400
500	1193	1026	1517	1305	1,3130	7,018701
600	1389	1195	1761	1514	1,3013	8,547800
700	1542	1326	1953	1679	1,2950	9,725641
800	1699	1461	2147	1846	1,2860	11,093338
900	1837	1580	2339	2012	1,3267	10,233300
$\Phi = K_m \cdot \Delta T^n$						

Date: 02.01.2015

Signed for and on behalf of the manufacturer by:

ELBA BASINÇLI DÖKÜM SANAYİ A.Ş.



CONSTRUCTION PRODUCTS REGULATION
DECLARATION OF PERFORMANCE

Issue Date: 01.08.2013 Document No: F-KGSF-029 Rev. No: 00 Rev Date: -

Description:	Panel Radiators
Model:	Type 22 (PKKP)
Intended Use:	Radiators for connection to and use within a hydronic sealed central heating system
Manufacturer:	ELBA Basıncılı Döküm AŞ. Manisa Organize Sanayi Bölgesi 50.Yıl Caddesi No:15 Manisa
Representative:	Romstal Imex SRL Romania
Trade Mark	ELBA - ECCORAD - PREMIUM
Additional Information	The radiators has a 'R' stamp on the side covers.
System of Assessment & Verification of Constancy of Performance:	System 3: All products in different ELBA production site, produced according to the same technical specifications use the same production methods and materials, fulfil the same requirement of quality
Harmonised Standards:	EN 442 - 1 :1998 / EN 442 - 2 : 1998 / EN 442 - 3 : 2007
Notified Bodies:	CETIAT 25 avenue des arts BP 2042 69603 Villeurbanne cedex France Report no : 1623 BU 024 - V2

Essential Characteristics			Performance				
EN 442 - 1 : 1998 Durability Test			100 Hour Humidity Test		PASS	Turkish Standards Instituion (TSE) Notified Body 1783	
EN 442 - 1 : 1998 Reaction to Fire			Class A1		PASS	Turkish Standards Instituion (TSE) Notified Body 1783	
EN 442 - 1 : 1998 Strength Pressure Test			Leak Test : 1300 kPa Strength Pressure Test: 1690 kPa Declared Max. Working Pressure: 1000 kPa		PASS	Centre Technique des Industries Aerauliques et Thermiques (CETIAT) Notified Body 1623	
EN 442 - 1 : 1998 Thermal Output Test			Thermal Output Characteristic Equations (L = length in metres)			Centre Technique des Industries Aerauliques et Thermiques (CETIAT) Notified Body 1623	
Heights	ΔT 50° C		ΔT 60° C		n	K _M	Φ
	Watt/m	Kcal/hm	Watt/m	Kcal/hm			
300	1001	861	1266	1089	1,2865	6,527400	Φ=K _m .ΔT ⁿ
400	1273	1095	1618	1391	1,3190	7,303746	
500	1528	1314	1941	1670	1,3170	8,836810	
600	1788	1538	2276	1957	1,3237	10,078200	
700	2006	1725	2550	2193	1,3130	11,797765	
800	2233	1920	2835	2438	1,3120	13,171813	
900	2451	2108	3127	2689	1,3363	13,152400	

Date: 02.01.2015

Signed for and on behalf of the manufacturer by:

ELBA BASINCLI DÖKÜM SANAYİ A.Ş.



CONSTRUCTION PRODUCTS REGULATION
DECLARATION OF PERFORMANCE

Issue Date: 01.08.2013 Document No: F-KGSF-029 Rev. No: 00 Rev Date: - -

Description:	Panel Radiators					
Model:	Type 22 (PKKP)					
Intended Use:	Radiators for connection to and use within a hydronic sealed central heating system					
Manufacturer:	ELBA Basınçlı Döküm AŞ. Manisa Organize Sanayi Bölgesi 50.Yıl Caddesi No:15 Manisa					
Representative:	Romstal Imex SRL Romania					
Trade Mark	HABITAT					
Additional Information	- - -					
System of Assessment & Verification of Constancy of Performance:	System 3: All products in different ELBA production site, produced according to the same technical specifications use the same production methods and materials, fulfil the same requirement of quality					
Harmonised Standards:	EN 442 - 1 :1998 / EN 442 - 2 : 1998 / EN 442 - 3 : 2007					
Notified Bodies:	CETIAT 25 avenue des arts BP 2042 69603 Villeurbanne cedex France Report no : 1623 CL 011 - VO / 1623 CL 012 - VO					
Essential Characteristics	Performance					
EN 442 - 1 : 1998 Durability Test	100 Hour Humidity Test		PASS		Turkish Standards Institution (TSE) Notified Body 1783	
EN 442 - 1 : 1998 Reaction to Fire	Class A1		PASS		Turkish Standards Institution (TSE) Notified Body 1783	
EN 442 - 1 : 1998 Strength Pressure Test	Leak Test : 1300 kPa Strength Pressure Test: 1690 kPa Declared Max. Working Pressure: 1000 kPa		PASS		Centre Technique des Industries Aerauliques et Thermiques (CETIAT) Notified Body 1623	
EN 442 - 1 : 1998 Thermal Output Test	Thermal Output Characteristic Equations (L = length in metres)				Centre Technique des Industries Aerauliques et Thermiques (CETIAT) Notified Body 1623	
Heights	$\Delta T 50^{\circ} C$		$\Delta T 60^{\circ} C$		n	K_M
	Watt/m	Kcal/hm	Watt/m	Kcal/hm		
500	1273	1095	1609	1383	1,2939	8,386000
600	1522	1309	1923	1653	1,2850	9,980800
						$\Phi = K_m \cdot \Delta T^n$

Date: 02.01.2015

Signed for and on behalf of the manufacturer by;

ELBA BASINÇLI DÖKÜM SANAYİ A.Ş.



CONSTRUCTION PRODUCTS REGULATION
DECLARATION OF PERFORMANCE

Issue Date: 01.08.2013 Document No:F-KGSF-029 Rev. No: 00 Rev Date:'- -

Description:	Panel Radiators
Model:	Type 30(PPP)
Intended Use:	Radiators for connection to and use within a hydronic sealed central heating system
Manufacturer:	ELBA Basınçlı Döküm AŞ. Manisa Organize Sanayi Bölgesi 50.Yıl Caddesi No:15 Manisa
Representative:	Romstal Imex SRL Romania
Trade Mark	ELBA - E.C.A. - ECORAD - PREMIUM
Additional Information	The radiators has a 'R' stamp on the side covers.
System of Assessment & Verification of Constancy of Performance:	System 3: All products in different ELBA production site, produced according to the same technical specifications use the same production methods and materials, fulfil the same requirement of quality
Harmonised Standards:	EN 442 - 1 :1998 / EN 442 - 2 : 1998 / EN 442 - 3 : 2007
Notified Bodies:	Politecnico Di Milano Dipartimento Di Energia Laboratoria Misure Ricerche Termotecniche M.R.T. Via Raffaele Lambruschini, 4 (Zona Bovisa) - 20156 Milano ITALY No: ENE/MRT.EEC.11010

Essential Characteristics			Performance				
EN 442 - 1 : 1998 Durability Test			100 Hour Humidity Test		PASS	Turkish Standards Instituion (TSE) Notified Body 1783	
EN 442 - 1 : 1998 Reaction to Fire			Class A1		PASS	Turkish Standards Instituion (TSE) Notified Body 1783	
EN 442 - 1 : 1998 Strength Pressure Test			Leak Test : 1300 kPa Strength Pressure Test: 1690 kPa Declared Max. Working Pressure: 1000 kPa		PASS	Centre Technique des Industries Aerauliques et Thermiques (CETIAT) Notified Body 1623	
EN 442 - 1 : 1998 Thermal Output Test			Thermal Output Characteristic Equations (L = length in metres)			Centre Technique des Industries Aerauliques et Thermiques (CETIAT) Notified Body 1623	
Heights	ΔT 50° C		ΔT 60° C		n	K _M	Φ
	Watt/m	Kcal/hm	Watt/m	Kcal/hm			
300	864	743	1097	944	1,3103	5,132788	Φ=K _m .ΔT ⁿ
400	1077	926	1368	1176	1,3118	6,360728	
500	1281	1102	1628	1400	1,3133	7,521281	
600	1479	1272	1880	1617	1,3148	8,633063	
700	1671	1437	2124	1827	1,3162	9,700456	
800	1857	1597	2361	2031	1,3177	10,717150	
900	2040	1754	2595	2231	1,3192	11,704390	

Date: 02.01.2015

Signed for and on behalf of the manufacturer by:

ELBA BASINÇLI DÖKÜM SANAYİ A.Ş.



CONSTRUCTION PRODUCTS REGULATION
DECLARATION OF PERFORMANCE

Issue Date: 01.08.2013 Document No: F-KGSF-029 Rev. No: 00 Rev Date: - -

Description:	Panel Radiators					
Model:	Type 33 (PKKPKP)					
Intended Use:	Radiators for connection to and use within a hydronic sealed central heating system					
Manufacturer:	ELBA Basıncılı Döküm AŞ. Manisa Organize Sanayi Bölgesi 50.Yıl Caddesi No:15 Manisa					
Representative:	Romstal Imex SRL Romania					
Trade Mark	ELBA - ECCORAD - PREMIUM					
Additional Information	The radiators has a 'R' stamp on the side covers.					
System of Assessment & Verification of Constancy of Performance:	System 3: All products in different ELBA production site, produced according to the same technical specifications use the same production methods and materials, fulfil the same requirement of quality					
Harmonised Standards:	EN 442 - 1 :1998 / EN 442 - 2 : 1998 / EN 442 - 3 : 2007					
Notified Bodies:	CETIAT 25 avenue des arts BP 2042 69603 Villeurbanne cedex France Report no : 1623 CL 012 - VO / 1623 CL 011 - VO					
Essential Characteristics	Performance					
EN 442 - 1 : 1998 Durability Test	100 Hour Humidity Test		PASS		Turkish Standards Institution (TSE) Notified Body 1783	
EN 442 - 1 : 1998 Reaction to Fire	Class A1		PASS		Turkish Standards Institution (TSE) Notified Body 1783	
EN 442 - 1 : 1998 Strength Pressure Test	Leak Test : 1300 kPa Strength Pressure Test: 1690 kPa Declared Max. Working Pressure: 1000 kPa		PASS		Centre Technique des Industries Aerauliques et Thermiques (CETIAT) Notified Body 1623	
EN 442 - 1 : 1998 Thermal Output Test	Thermal Output Characteristic Equations (L = length in metres)				Centre Technique des Industries Aerauliques et Thermiques (CETIAT) Notified Body 1623	
Heights	$\Delta T 50^{\circ} C$		$\Delta T 60^{\circ} C$		n	
	Watt/m	Kcal/hm	Watt/m	Kcal/hm		K_M
300	1446	1244	1835	1578	1,3069	8,707000
400	1810	1557	2305	1982	1,3290	9,988665
500	2149	1848	2737	2354	1,3300	11,814196
600	2486	2138	3171	2727	1,3350	13,407300
700	2791	2400	3556	3058	1,3310	15,285341
800	3091	2658	3939	3387	1,3310	16,928926
900	3395	2920	4340	3732	1,3483	17,377100

Date: 02.01.2015

Signed for and on behalf of the manufacturer by;

ELBA BASINCLI DÖKÜM SANAYİ A.Ş.



CONSTRUCTION PRODUCTS REGULATION
DECLARATION OF PERFORMANCE

Issue Date: 01.08.2013 Document No: F-KGSF-029 Rev. No: 00 Rev Date: -

Description:	Panel Radiators
Model:	Type 11 (PK)
Intended Use:	Radiators for connection to and use within a hydronic sealed central heating system
Manufacturer:	ELBA Basınçlı Döküm AŞ. Manisa Organize Sanayi Bölgesi 50.Yıl Caddesi No:15 Manisa
Representative:	Romstal Imex SRL Romania
Trade Mark	Vision
Additional Information	The radiators has a 'R' stamp on the side covers.
System of Assessment & Verification of Constancy of Performance:	System 3: All products in different ELBA production site, produced according to the same technical specifications use the same production methods and materials, fulfil the same requirement of quality
Harmonised Standards:	EN 442 - 1 :1998 / EN 442 - 2 : 1998 / EN 442 - 3 : 2007
Notified Bodies:	CETIAT 25 avenue des arts BP 2042 69603 Villeurbanne cedex France Report no : 1623 BU 022 - V2

Essential Characteristics			Performance				
EN 442 - 1 : 1998 Durability Test			100 Hour Humidity Test		PASS	Turkish Standards Instituion (TSE) Notified Body 1783	
EN 442 - 1 : 1998 Reaction to Fire			Class A1		PASS	Turkish Standards Instituion (TSE) Notified Body 1783	
EN 442 - 1 : 1998 Strength Pressure Test			Leak Test : 1300 kPa Strength Pressure Test: 1690 kPa Declared Max. Working Pressure: 1000 kPa		PASS	Centre Technique des Industries Aerauliques et Thermiques (CETIAT) Notified Body 1623	
EN 442 - 1 : 1998 Thermal Output Test			Thermal Output Characteristic Equations (L = length in metres)			Centre Technique des Industries Aerauliques et Thermiques (CETIAT) Notified Body 1623	
Heights	ΔT 50° C		ΔT 60° C		n	K _M	Φ
	Watt/m	Kcal/hm	Watt/m	Kcal/hm			
300	465	400	585	503	1,2631	3,990000	Φ=K _m .ΔT ⁿ
400	604	520	761	654	1,2960	4,542272	
500	738	634	929	799	1,2890	5,656291	
600	866	745	1090	938	1,2802	6,858000	
700	989	851	1247	1072	1,2770	7,795927	
800	1107	952	1397	1202	1,2700	8,909580	
900	1221	1050	1542	1326	1,3047	8,507900	

Date: 02.01.2015

Signed for and on behalf of the manufacturer by;



CONSTRUCTION PRODUCTS REGULATION
DECLARATION OF PERFORMANCE

Issue Date: 01.08.2013 Document No: F-KGSF-029 Rev. No: 00 Rev Date: -

Description:	Panel Radiators					
Model:	Type 21 (PKP)					
Intended Use:	Radiators for connection to and use within a hydronic sealed central heating system					
Manufacturer:	ELBA Basınçlı Döküm AŞ. Manisa Organize Sanayi Bölgesi 50.Yıl Caddesi No:15 Manisa					
Representative:	Romstal Imex SRL Romania					
Trade Mark	VISION					
Additional Information	The radiators has a 'R' stamp on the side covers.					
System of Assessment & Verification of Constancy of Performance:	System 3: All products in different ELBA production site, produced according to the same technical specifications use the same production methods and materials, fulfil the same requirement of quality					
Harmonised Standards:	EN 442 - 1 :1998 / EN 442 - 2 : 1998 / EN 442 - 3 : 2007					
Notified Bodies:	CETIAT 25 avenue des arts BP 2042 69603 Villeurbanne cedex France Report no : 1623 BU 023 - V2					
Essential Characteristics	Performance					
EN 442 - 1 : 1998 Durability Test	100 Hour Humidity Test		PASS		Turkish Standards Institution (TSE) Notified Body 1783	
EN 442 - 1 : 1998 Reaction to Fire	Class A1		PASS		Turkish Standards Institution (TSE) Notified Body 1783	
EN 442 - 1 : 1998 Strength Pressure Test	Leak Test : 1300 kPa Strength Pressure Test: 1690 kPa Declared Max. Working Pressure: 1000 kPa		PASS		Centre Technique des Industries Aerauliques et Thermiques (CETIAT) Notified Body 1623	
EN 442 - 1 : 1998 Thermal Output Test	Thermal Output Characteristic Equations (L = length in metres)				Centre Technique des Industries Aerauliques et Thermiques (CETIAT) Notified Body 1623	
Heights	$\Delta T 50^{\circ} C$		$\Delta T 60^{\circ} C$		n	K_M
	Watt/m	Kcal/hm	Watt/m	Kcal/hm		
300	705	607	894	769	1,2833	5,138600
400	901	775	1142	982	1,3210	5,674400
500	1088	936	1379	1186	1,3130	7,018701
600	1267	1090	1606	1381	1,3013	8,547800
700	1440	1238	1826	1570	1,2950	9,725641
800	1606	1381	2038	1753	1,2860	11,093338
900	1768	1520	2243	1929	1,3267	10,233300

$$\Phi = K_m \cdot \Delta T^n$$

Date: 02.01.2015

Signed for and on behalf of the manufacturer by:

ELBA BASINÇLI DÖKÜM SANAYİ A.Ş.



CONSTRUCTION PRODUCTS REGULATION
DECLARATION OF PERFORMANCE

Issue Date: 01.08.2013 Document No: F-KGSF-029 Rev. No: 00 Rev Date: '- -

Description:	Panel Radiators					
Model:	Type 22 (PKKP)					
Intended Use:	Radiators for connection to and use within a hydronic sealed central heating system					
Manufacturer:	ELBA Basınçlı Döküm AŞ. Manisa Organize Sanayi Bölgesi 50.Yıl Caddesi No:15 Manisa					
Representative:	Romstal Imex SRL Romania					
Trade Mark	VISION					
Additional Information	The radiators has a 'R' stamp on the side covers.					
System of Assessment & Verification of Constancy of Performance:	System 3: All products in different ELBA production site, produced according to the same technical specifications use the same production methods and materials, fulfil the same requirement of quality					
Harmonised Standards:	EN 442 - 1 :1998 / EN 442 - 2 : 1998 / EN 442 - 3 : 2007					
Notified Bodies:	CETIAT 25 avenue des arts BP 2042 69603 Villeurbanne cedex France Report no : 1623 BU 024 - V2					
Essential Characteristics	Performance					
EN 442 - 1 : 1998 Durability Test	100 Hour Humidity Test			PASS	Turkish Standards Institution (TSE) Notified Body 1783	
EN 442 - 1 : 1998 Reaction to Fire	Class A1			PASS	Turkish Standards Institution (TSE) Notified Body 1783	
EN 442 - 1 : 1998 Strength Pressure Test	Leak Test : 1300 kPa Strength Pressure Test: 1690 kPa Declared Max. Working Pressure: 1000 kPa			PASS	Centre Technique des Industries Aerauliques et Thermiques (CETIAT) Notified Body 1623	
EN 442 - 1 : 1998 Thermal Output Test	Thermal Output Characteristic Equations (L = length in metres)				Centre Technique des Industries Aerauliques et Thermiques (CETIAT) Notified Body 1623	
Heights	$\Delta T 50^{\circ} C$		$\Delta T 60^{\circ} C$		n	K_M
	Watt/m	Kcal/hm	Watt/m	Kcal/hm		
300	898	773	1136	977	1,2865	6,527400
400	1144	984	1447	1244	1,3190	7,303746
500	1379	1186	1744	1500	1,3170	8,836810
600	1605	1380	2030	1746	1,3237	10,078200
700	1823	1568	2307	1984	1,3130	11,797765
800	2034	1749	2577	2216	1,3120	13,171813
900	2239	1926	2839	2442	1,3363	13,152400

$$\Phi = K_m \cdot \Delta T^n$$

Date: 02.01.2015

Signed for and on behalf of the manufacturer by;

ELBA BASINÇLI DÖKÜM SANAYİ A.Ş.



CONSTRUCTION PRODUCTS REGULATION
DECLARATION OF PERFORMANCE

Issue Date: 01.08.2013 Document No: F-KGSF-029 Rev. No: 00 Rev Date: -

Description:	Panel Radiators					
Model:	Type 33 (PKKPKP)					
Intended Use:	Radiators for connection to and use within a hydronic sealed central heating system					
Manufacturer:	ELBA Basıncılı Döküm AŞ. Manisa Organize Sanayi Bölgesi 50.Yıl Caddesi No:15 Manisa					
Representative:	Romstal Imex SRL Romania					
Trade Mark	VISION					
Additional Information	The radiators has a 'R' stamp on the side covers.					
System of Assessment & Verification of Constancy of Performance:	System 3: All products in different ELBA production site, produced according to the same technical specifications use the same production methods and materials, fulfil the same requirement of quality					
Harmonised Standards:	EN 442 - 1 :1998 / EN 442 - 2 : 1998 / EN 442 - 3 : 2007					
Notified Bodies:	CETIAT 25 avenue des arts BP 2042 69603 Villeurbanne cedex France Report no : 1623 CL 012 - VO / 1623 CL 011 - VO					
Essential Characteristics	Performance					
EN 442 - 1 : 1998 Durability Test	100 Hour Humidity Test		PASS		Turkish Standards Institution (TSE) Notified Body 1783	
EN 442 - 1 : 1998 Reaction to Fire	Class A1		PASS		Turkish Standards Institution (TSE) Notified Body 1783	
EN 442 - 1 : 1998 Strength Pressure Test	Leak Test : 1300 kPa Strength Pressure Test: 1690 kPa Declared Max. Working Pressure: 1000 kPa		PASS		Centre Technique des Industries Aerauliques et Thermiques (CETIAT) Notified Body 1623	
EN 442 - 1 : 1998 Thermal Output Test	Thermal Output Characteristic Equations (L = length in metres)				Centre Technique des Industries Aerauliques et Thermiques (CETIAT) Notified Body 1623	
Heights	$\Delta T 50^{\circ} C$		$\Delta T 60^{\circ} C$		n	
	Watt/m	Kcal/hm	Watt/m	Kcal/hm	K_M	
300	1269	1091	1601	1376	1,3069	
400	1614	1388	2040	1754	1,3290	
500	1943	1671	2459	2115	1,3300	
600	2257	1941	2862	2461	1,3350	
700	2560	2201	3248	2793	1,3310	
800	2851	2452	3622	3115	1,3310	
900	3134	2695	3984	3426	1,3483	
						$\Phi = K_m \cdot \Delta T^n$

Date: 02.01.2015

Signed for and on behalf of the manufacturer by:

ELBA BASINÇILI DÖKÜM SANAYİ A.Ş.