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CUSTOMER Cliente	BOCCIOLONE ANTINCENDIO S.p.A. Via Indren, 2 Z.I. Roccapietra 13019 Varallo (VC) Italia		
CONTRACT Commessa	CO016920 – 07/07/2020		
TEST REPORT Rapporto di Prova	RP045920 Test in accordance with DM 174		
APPLICABLE STANDARDS Norme di riferimento	➤ Decreto Ministeriale n° 174 del 2004		
Date Data	Prepared by Redazione	Verified by Verifica Tecnica	Approved by Autorizzazione
24/08/2020	Laboratory Operator Davide Coradin	Assistant Manager Eleonora Andrea Basso	General Manager Michele Setaro
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1. GENERAL REMARKS

1.1 Customer data

Customer:	BOCCIOLONE ANTINCENDIO S.p.A.
Address:	Via Indren, 2 Z.I. Roccapietra 13019 Varallo (VC) – Italy

1.2 Identification of equipment and/or subsystem under test (EUT)

EUT nr	Acceptance code	Manufacturer and model	Receiving date
1	AC027420/1	B.A element in spheroidal cast iron	13/07/2020
2	AC027420/2	B.A element in EPDM	13/07/2020

1.3 Sampling

All test results are related on the samples tested by the test laboratory, taken from production by the Client. The extension of test results to the entire production is responsibility of manufacturer/importer.

2. SCOPE

Test and measurements scope is to provide to the Client useful indications in order to evaluate EUT compliance with reference standards; the test plan has been requested by Client.

3. APPLICABLE DOCUMENTS

3.1 Reference Standards and Documents

Decreto Ministeriale nr°174 of 2004	Regulation on materials and objects that can be used in fixed water collection, treatment, supply and distribution of water intended for human consumption.
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3.2 Applicability

Test Plan is shown in paragraph 6.1.4 of this Test Report.

3.3 Definitions and glossary of terms

EUT: Equipment Under Test
PASS: In compliance with reference Standard
FAIL: Not in compliance with reference Standard

4. TECHNICAL COMPETENCE

Technicians, assigned to execute the tests described in this Test Report, have been qualified as required by Quality System of Tecnolab del Lago Maggiore s.r.l.

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5. TEST EQUIPMENT USED

Tecnolab code	Description	Manufacturer	Model
STACH016	Automatic optical emission spectrometer	GNR	MLP

6. TEST PERFORMED

6.1 General

6.1.1 Test site

Tests were performed under responsibility of laboratory Tecnolab del Lago Maggiore S.r.l., Via dell'Industria 20, 28924 Verbania Fondotoce (VB) ITALY.

6.1.2 Dates of activity

All the activity were performed between 16/07/2020 and 10/08/2020.

6.1.3 Measurement uncertainty

The measurement uncertainties stated in this document are expressed as expanded uncertainty obtained by multiplying the standard uncertainty by the coverage factor $K = 2$ corresponds to a confidence level of about 95%.

6.1.4 Decision Rule for the attribution of Conformity

The Laboratory reports the compliance in accordance with the value of the test result without considering the associated uncertainty values for tests performed in accordance with specifications that identifies the conditions of acceptability and any related tolerances for the result.

6.1.5 List and description of tests

Test	Applicable Standard	Test Report's Paragraph	Test result
Determination on spheroidal cast iron	D.M. 174 (2004)	5.2.1	PASS
Determination on EPDM	D.M. 174 (2004)	5.2.2	PASS
Determination of chemical composition	D.M. 174 (2004)	5.3	PASS

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6.2 Evidence of global and specific migration

The samples delivered to the laboratory were analyzed in their individual materials.
In the paragraphs below, we show the results for each material.

6.2.1 Determination of global and specific migration of dyes on EPDM

Reference standard:	D.M. nr°174 of 2004			
Material:	EPDM – Ethylene-Propylene Diene Monomer			
Condition of test:	solution: distilled water time of contact: 24 hours temperature of contact: 40°C			
Parameter:	Measurement unit	Result	Uncertainty	Limit
Global migration	mg/kg	1,00	± 3,77	8
Specific migration of dyes	Optical transmission	optical transmission not lower than 95% compared to the baseline	-	optical transmission not lower than 95% compared to the baseline
PASS				

6.2.2 Determination on spheroidal cast iron

Reference standard:	D.M. nr°174 of 2004			
Material:	Spheroidal cast iron			
Condition of test:	solution: distilled water time of contact: 24 hours temperature of contact: 40°C			
Parameter:	Measurement unit	Result	Uncertainty	Limit
Sb	mg/kg	< 10	-	-
As	mg/kg	37	± 6	-
Cd	mg/kg	< 10	-	-
Cr	mg/kg	700	± 126	-
Mo	mg/kg	34	± 2	-
Pb	mg/kg	20	± 4	-
Cu	mg/kg	624	± 65	-
PASS				

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6.3 Determination of chemical composition

Element	Chemical Symbol	EUT 1 – Spheroidal Cast Iron	
		Med	ASD
Carbon	C	4,365	0,440
Silicon	Si	2,547	0,046
Manganese	Mn	0,175	0,007
Phosphorus	P	0,045	0,012
Sulfur	S	0,019	0,003
Chromium	Cr	0,070	0,004
Molybdenum	Mo	0,019	0,001
Nickel	Ni	0,023	0,002
Niobium	Nb	<0,001	----
Aluminum	Al	0,015	0,001
Copper	Cu	0,134	0,035
Cobalt	Co	0,002	0,001
Boron	B	<0,001	----
Titanium	Ti	0,019	0,002
Vanadium	V	0,006	0,001
Tungsten	W	0,021	0,002
Tin	Sn	0,060	0,060
Lead	Pb	<0,001	----
Calcium	Ca	0,006	0,002
Bismuth	Bi	<0,001	----
Arsenic	As	<0,001	----
Antimony	Sb	0,014	0,002
Zinc	Zn	0,114	0,073
Zircon	Zr	<0,001	----
Iron	Fe	92,346	0,361

7. ANNEX

- Annex 1: Verification of Conformity Document

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VERIFICATION OF CONFORMITY DOCUMENT

DOCUMENTO DI VERIFICA DELLA CONFORMITÀ

Customer: Cliente:	BOCCIOLONE ANTINCENDIO S.p.A. Via Indren, 2 Z.I. Roccapietra 13019 Varallo (VC) Italia	
Checked Appliance Model: Modello Apparecchio Verificato:	COD 9009Z.929	
Manufacturer: Costruttore:	BOCCIOLONE ANTINCENDIO S.p.A. Via Indren, 2 Z.I. Roccapietra 13019 Varallo (VC) Italia	
Applicable Standards: Norme Applicate:	D.M. 174 del 2004	
Test Report Evaluation: Valutazione Rapporto di Prova:	Based on the examination of Test Reports Nb. RP045920, after Manufacturer declaration of equality of the materials used for the different articles and after inspection of the different models, in date 24/08/2020 TECNOLAB del Lago Maggiore S.r.l. declares that all the checked models are in compliance with above Standards. Dopo aver esaminato il Test Report N° RP045920, dopo la dichiarazione da parte del Produttore che i materiali utilizzati risultano i medesimi per ciascun articolo e dopo l'ispezione dei differenti modelli, in data 24/08/2020 TECNOLAB del Lago Maggiore S.r.l. dichiara che tutti i modelli testati sono conformi alle normative di cui sopra. CODES/CODICI: ART.929/Z Giunto Rigido Omologato UI/Fm Zincato A Caldo / Rigid Coupling UI/Fm Galvanized ART.930/Z Giunto Flessibile Omologato UI/Fm Zincato A Caldo / Flexible Coupling UI/Fm Galvanized ART.931/Z Giunto Ridotto Omologato UI/Fm Zincato A Caldo /Reducing Coupling UI/Fm Galvanized ART.932/Z Derivazione A Staffa Filettata Omologata UI/Fm Zincata A Caldo / Mechanical Tee Threaded Outlet UI/Fm Galvanized ART.933/Z Derivazione A Staffa Scanalata Omologata UI/Fm Zincata A Caldo / Mechanical Tee Grooved Outlet UI/Fm Galvanized ART.934/Z Attacco Sprinkler Filettato Omologato UI/Fm Zincato A Caldo / U-Bolt Mechanical Tee UI/Fm Galvanized ART.935/Z Curva 90° Scanalata Omologata UI/Fm Zincata A Caldo / Grooved 90° Elbow UI/Fm Galvanized ART.936/Z Curva 45° Scanalata Omologata UI/Fm Zincata A Caldo / Grooved 45° Elbow UI/Fm Galvanized ART.937/Z Tee Scanalato Omologato UI/Fm Zincato A Caldo / Grooved Equal Tee UI/Fm Galvanized ART.938/Z Fondello Cieco Scanalato Omologato UI/Fm Zincato A Caldo / Grooved End Cap UI/Fm Galvanized ART.939/Z Riduzione Concentrica Scanalata Omologata UI/Fm Zincata A Caldo / Grooved Concentric Reducer UI/Fm Galvanized ART.941/Z Adattatore A Flangia Scanalato Omologato UI/Fm Zincato A Caldo / Grooved Flange UI/Fm Galvanized ART.942/Z Croce Scanalata Omologata UI/Fm Zincata A Caldo / Grooved Cross UI/Fm Galvanized	
Document Issue Date Data Emissione Documento	Verified by Verifica Tecnica	Approved by Autorizzazione
24/08/2020	Assistant Head of Sector Assistente Responsabile di Settore <i>Eleonora Andrea Basso</i>	Head of Laboratory Responsabile di Laboratorio <i>Michele Setaro</i>

*This Document is part of the full Test Report and should be read in conjunction with it.
 Questo Documento è parte del Rapporto di Prova e deve essere letto insieme ad esso.*

----- **END OF TEST REPORT NR. RP045920** -----