PTFE Vergine – FE1000

Certificazioni - *Certifications*

NSF 61, FDA, ACS, W270, WRAS, KTW , 3-a Sanitary standard 20-27 certified product (*)
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Valori ricavati da:
Test values from:

A - Tondo stampato e sinterizzato secondo ASTM D 4874
A - moulded and sintered rod according ASTM D 4874.

B - Tondo stampato e sinterizzato secondo ASTM D 4874
B - moulded and sintered rod according ASTM D 4874.

C - Tondo o tubo estruso.
C – Extruded rod or tube.

Materiali Forniti ricavati da:
Products made from:

Tondi e Manicotti a fascia grossa, Nastri e lastre sfogliati
Moulded rods and thick walled tubes, skived tapes and sheets

Lastre stampate e Manicotti a fascia sottile
Moulded sheets and thin walled tubes.

Tondi e tubi estrusi a secco
Extruded rods and tubes

Caratteristiche Fisiche
Physical Properties

Caratteristica **Property**	**Metodo di prova** **Test method**	**U.M.** **Units**	**Valori tipici misurati** **Typical Measured values**		
Tipo di Prodotto - *product type*			A	B	C
Densità – *Density*	ASTM D 792	gr/cm^3	2.165	2.160	2.155
Carico di rottura – *Tensile strength*	ASTM D 4894	MPa	32	28	22
Allungamento a rottura – *Elongation at break*	ASTM D 4894	%	320	250	220
Rigidità Dielettrica – *Dielectric Strength*	ASTM D 149	Kv/mm	38	34	30
Durezza – *Hardness*	ASTM D 2240	Shore D	57	55	54

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Gapi S.p.A.
via Molinaretti, 2
24060 Castelli Calepio (BG)
Italy

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NSF International

RECOGNIZES

GAPI S.p.A

Italy

AS COMPLYING WITH NSF/ANSI 61 AND ALL APPLICABLE REQUIREMENTS.
PRODUCTS APPEARING IN THE NSF OFFICIAL LISTING ARE
AUTHORIZED TO BEAR THE NSF MARK.

NSF

ANSI

This certificate is the property of NSF International and must be returned upon request. For the most current and complete information, please access NSF's website (www.nsf.org)

June 2, 2010
Certificate# 3F080 - 02

David Purkiss, General Manager
Water Distribution Systems

PTFE Vergine – FE1000

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Cerisie

LABORATORIO PER LA CERTIFICAZIONE E RICERCA
SUI SISTEMI ELASTOMERICI
con il patrocinio del C.N.R.

Cerisie

Messrs.
LANZA NUOVA S.p.A.
Via Tolari, 12
24060 GANDOSSO (BG)

Date 28th October, 2005
RP n° 570/B/bis
Ref. Fax dated 22.12.2004

Received 11.10.2005 Start tests 18.10.2005 End tests 27.10.2005 Page 1 of 1

R A P P O R T O D I P R O V A

Subject: DETERMINATION OF THE TOTAL EXTRACTIVES IN SIMULATORS OF FOODS, ACCORDING TO "FDA CRF 21 – PARTS 170 to 199 – ITEM 177.1550 PERFLUOROCARBON RESINS"

SEMIFINISHED AND FINISHED ITEMS SUPPLIED BY GAPI S.r.l. FROM VIRGIN GRANULAR PTFE (POLITETRAFLUOROETHYLENE)			Test methods	Requirements
Total extractives in simulators of foods after 2 hours at reflux temperature			FDA-CFR 21 Parts 170 / 199 Item 177.1550	
• Distilled water	mg/in²	0,09		max 0,2
• n.heptane	mg/in²	0,08		max 0,2
• 50% (v/v) ethanol	mg/in²	0,07		max 0,2
• ethyl acetate	mg/in²	0,08		max 0,2

REMARK: The total extractives **meet** the requirements of "FDA CFR 21 – Parts 170 to 199 – Item 177.1550"

I risultati ottenuti si riferiscono esclusivamente al campione provato.
Il presente rapporto di prova non può essere riprodotto parzialmente salvo approvazione del Laboratorio.

E. Badomer, *Operator* F. Casa, *Director*

20098 San Giuliano Milanese - Via privata Cadore 13 - Tel. (02) 98.80.443 - Fax (02) 98.80.975 - P.IVA e C.F. 09984500158

PTFE Vergine – FE1000

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CARSO - LABORATOIRE SANTÉ ENVIRONNEMENT HYGIÈNE DE LYON

Laboratoire Agréé pour les analyses d'eaux par le Ministère de la Santé

ATTESTATION DE CONFORMITE SANITAIRE

Conformément à l'arrêté du 29 mai 1997 modifié et aux circulaires du Ministère de la Santé DGS/VS4 n° 99/217 du 12 avril 1999 et DGS/VS4 n° 2000/232 du 27 avril 2000

Coordonnées du demandeur :	Nom(s) commercial(aux) du produit fini :
GAPI S.P.A. **Via Molinaretti, 2** **24060 CASTELLI CALEPIO (BG)** **Italie**	**PTFE FE 1000** **(à base du matériau Gujarat)**

Type de produit fini :

- ☐ tube
- ☐ produit de jointoyage
- ☐ autre :
- ☒ raccord et manchon
- ☒ joint
- ☐ revêtement
- ☒ composant d'accessoires

Nature du matériau :

- ☐ polychlorure de vinyl PVC
- ☐ PVC surchloré PVC-C
- ☐ polyéthylène PE
- ☐ polyéthylène réticulé PER
- ☐ polypropylène PP
- ☐ polybutylène PB
- ☐ polyamide PA
- ☒ polytétrafluoroéthylène PTFE
- ☐ acrylonitrile-butadiène-styrène ABS
- ☐ à base de résine époxydique
- ☐ éthylène-propylène EPDM
- ☐ butadiène-acrylonitrile NBR
- ☐ autre : polyuréthanne

Commentaires : semi-produit testé sous forme de tube (extrusion).

N° de dossier attribué par le laboratoire habilité : **12 MAT LY 155**

Formulation chimique :

La formulation chimique a été vérifiée conforme aux listes positives. Les restrictions sont vérifiées.

Essais d'inertie réalisés selon la norme XP P 41-250 :

Rapport S/V testé : 3 cm^2/L
Date des essais : du 19 Novembre 2012 au 04 Avril 2013
Commentaires : Les essais d'inertie réalisés selon la circulaire DGS/VS4 n° 2000/232 du 27 avril 2000 sur des échantillons de 3 cm^2 n'ont fait apparaître aucune anomalie. Les résultats sont conformes aux exigences de la circulaire DGS/VS4 n° 99-217 du 12 Avril 1999.

Attestation délivrée par : Christelle AUTUGELLE
Responsable Laboratoire MCDE
CARSO - L.S.E.H.L.

Signature :

A la date du : 10 Avril 2013

Date d'expiration de l'ACS : 10 Avril 2018
Commentaires : /

F_MC058-b 03.11.2003 CAu

Page 1/1

SAS au capital de 7 203 622 Euros - RCS Lyon B 410 545 313 - SIRET 410 545 313 00018 - APE 743 B - N° TVA : FR 82 410 545 313
Siège Social : 321, avenue Jean Jaurès - F - 69362 LYON cedex 07 - Tél. : (33) 04 72 76 16 16 - Fax : (33) 04 78 72 12 11

I dati riportati sono suscettibili di variazioni che GAPI riterrà di apportare per migliorare le caratteristiche del prodotto. Le informazioni fornite sono indicative.
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via Molinaretti, 2
24060 Castelli Calepio (BG)
Italy

PTFE Vergine – FE1000

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Hygiene-Institut
des Ruhrgebiets

Institut für Umwelthygiene und Umweltmedizin
Direktor: Prof. Dr. rer. nat. L. Dunemann

GAPI S.p.A.
Via Mollinaretti, 2
24060 CASTELLI CALEPIO
ITALY

Rottbusser Str. 19
45879 Gelsenkirchen

Phone: (0209) 9242-220
Fax: (0209) 9242-222
E-Mail: c.schell@hyg.de
Internet: www.hyg.de

Reference: W-198348-11-SI
Before: W-192373e-10-SI
Responsible: Mrs. Dr. Ch. Schell

Gelsenkirchen, 07.01.2011

TEST CERTIFICATE

(Transcription and Prolongation of test certificate W-192373e-10-SI)

Enhancement of Microbial Growth on Materials to Come into Contact with Drinking Water
Test pursuant to DVGW Technical Standard W 270, November 2007

Client:	GAPI S.p.A. Via Mollinaretti, 2 24060 CASTELLI CALEPIO ITALY
Test material:	**PTFE FE1000**
Test method:	Material test

According to test report **W-136547-06-SI** of 13.02.2006, the afore mentioned material **PTFE FE1000** is conform to the requirements for the use in the area of drinking water systems pursuant to DVGW Technical Standard W 270. Details to test run and test results are itemized in the test report.

This test certificate shall become valid upon date of issue and shall expire on **13.02.2016** if conditions and requirements remain unaltered.

The Director of the Institute
on behalf

Dr. Ch. Schell
Department of Water Hygiene and Environmental Microbiology

The test results and assessments refer exclusively to the examined test specimens and the existing regulations.
The validity of this document expires in case of modifications in the composition of the material or the processing conditions.
The present document may only be published and reproduced unabridged and unaltered.
This document is no DVGW certification.

DAP-PL-2546.00

Träger des Hygiene-Institutes: Verein zur Bekämpfung der Volkskrankheiten im Ruhrbergbau e.V., Gelsenkirchen

PTFE Vergine – FE1000

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WRAS
Water Regulations Advisory Scheme

Our Ref: HL/M120283
Test Report: MAT/LAB 472E

4th September 2012

Gapi Spa.
Via Molinaretti,
2-24060 Castelli Calepio (BG),
Italy

WATER REGULATIONS ADVISORY SCHEME (WRAS)
MATERIAL APPROVAL

The material referred to in this letter is suitable for contact with wholesome water for domestic purposes having met the requirements of BS 6920-1:2000 'Suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water'.

The reference relates solely to its effect on the quality of the water with which it may come into contact and does not signify the approval of its mechanical or physical properties for any use.

POLYTETRAFLUOROETHYLENE (PTFE) **5295**

PTFE FE 1000. White coloured PTFE material manufactured by interring and skiving. For use with water up to 85°C.

APPROVAL NUMBER: 1208510
APPROVAL HOLDER: GAPI SPA.

The Scheme reserves the right to review approval. This approval is valid between August 2012 and August 2017.

An entry, as above, will accordingly be included in the Water Fittings Directory on-line under the section headed, "Materials which have passed full tests of effect on water quality".

The Directory may be found at: www.wras.co.uk/directory

Yours faithfully

Jason Furnival
Approvals & Enquiries Manager
Water Regulations Advisory Scheme

Water Regulations Advisory Scheme Ltd.
30 Fern Close, Fen-y-Fan Industrial Estate,
Oakdale, Gwent NP11 3EE, UK.
Tel: 01495 248454 Fax: 01495 236289
E-mail: info@wras.co.uk Website: www.wras.co.uk

PTFE Vergine – FE1000

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Hygiene-Institut des Ruhrgebiets

Institut für Umwelthygiene und Umweltmedizin
Direktor: Prof. Dr. rer. nat. L. Dunemann

Hygiene-Institut · Postfach 10 12 55 · 45812 Gelsenkirchen / GERMANY

GAPI S.P.A.
Via Molinaretti 2
24060 CASTELLI CALEPIO (BG)
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HYGIENE-INSTITUT, UMWELT
Rotthauser Str. 21
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Telephone +49 (0) 209 9242-0
Extension +49 (0) 209 9242-351
Telefax +49 (0) 209 9242-212
E-Mail a.bernoussi@hyg.de
Internet www.hyg.de

Reference No.: K-201858-11-Bs
Contact person: Anasse Bernoussi (Eng.)

Gelsenkirchen, 11.04.2011

TEST CERTIFICATE
according to the KTW-Guideline

Product: **PTFE FE 1000**

Test specimen: Seals made of Fluon (AGC) and Algoflon (Solvay)
$Ø_a$ 10 mm Ø, 4,5 mm thickness 2 mm

The test specimen meets the requirements according to the test report dated **11.04.2011 Ref.-No.: K-201858-11-Bs** for the following applications and temperatures:

Applications:	cold water (23°C)	warm water (60°C)	hot water (85°C)
Pipes with DN < 80 mm (domestic distribution)	---	---	---
Pipes of diameter 80 mm ≤ DN < 300 mm (supply pipes)	---	---	---
Pipes of diameter DN ≥ 300 mm (main pipes)	---	---	---
Fittings for pipes with DN < 80 mm	---	---	---
Fittings for pipes with 80 mm ≤ DN < 300 mm	---	---	---
Fittings for pipes with DN ≥ 300 mm	---	---	---
Sealings for pipes with DN < 80 mm	passed	---	passed
Sealings for pipes with 80 mm ≤ DN < 300 mm	passed	---	passed
Sealings for pipes with DN ≥ 300 mm	passed	---	passed
Tanks in the domestic installations including repair systems	---	---	---
Tanks other than in domestic installations including repair systems	---	---	---

as far as technically suited.

If pipes, sealings or fittings and ancillaries do not differ in their material composition and process of manufacture, testing of the smallest diameter of the product range is sufficient.

This test certificate is valid beginning with the date of issue and is ending by **11.04.2016** as far as there are no changes in the formula. After this time it can be extended for further 5 years if demanded.

The Director of the Hygiene-Institute
on behalf of

Dr. rer. nat. Andreas Koch
Head of the Dept. for water
hygienic material testings

HYGIENE-INSTITUT DES RUHRGEBIETS Institut für Umwelthygiene und Umweltmedizin

The assessment was based on the assumption that the used starting substances and monomers used to manufacture the product may completely known and no other substances are present in the product. The validity of this document expires in case of modifications in the composition of the product or the processing conditions. The results and evaluations refer to the groups of test items. This document may not be published without our written permission only complete and unchanged or duplicated.

ilac-MRA DAkkS Deutsche Akkreditierungsstelle D-PL-13042-02-00

Träger des Instituts: Verein zur Bekämpfung der Volkskrankheiten im Ruhrkohlengebiet e.V., Gelsenkirchen, **Vereinsregister:** VR 519 Amtsgericht Gelsenkirchen **USt.-ID:** DE125018356, **Vorstand:** Henriette Reker (Vorsitzende), Prof. Dr. Jürgen Kretschmann, Dr. Emanuel Grün, Volker Vohmann, Prof. Dr. Lothar Dunemann

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element

GAPI S.p.A.	Attention	Mr. Ryan Shinabery
Via Molinaretti, 2	Your Reference	011040
Castelli Calepio (Bg) - Italy	Report Number	ENB012354P-1
	Author	Kimberly Hoffman
	Date	February 17, 2011

Subject Evaluation of FE1000 Virgin PTFE per 3-A Sanitary Standard 20-27

Dear Mr. Shinabery:

Forty molded two inch diameter disks of polytetrafluoroethylene (PTFE), with a surface area of 7.00 ± 0.10 in^2 as required by the 20-27 procedure, labeled FE1000 Virgin PTFE, were submitted for testing in accordance with 3-A Sanitary Standard Procedure No. 20-27 (latest revision). The 3-A Sanitary Testing Procedure subjects the specimens to accelerated use-simulating tests to determine the cleanability for use in dairy equipment.

The results from the cleanability response testing, in which specimens were subjected to a series of cleaning solutions, are indicated in Table 1. The results show that the samples had either no appreciable weight gains, or gains that were less than the maximum allowable limit. The maximum allowable limit for fluorocarbons including PTFE is 0.05%.

The results for the product treatment, where the samples were divided into two groups, are detailed in Table 2. The M-series set of specimens was placed in cream at room temperature for seven days, which resulted in either no appreciable weight gains, or gains that were less than the maximum allowable limit of 0.05%. The L-series of specimens was placed in a lactic acid solution at 155 ºF for seven days. These specimens had either no appreciable weight gains, or weight gains less than the maximum allowable limit of 0.05%.

The results from the cleanability comparison testing, in which the surfaces appear better than the surface of polished 316 stainless steel, are presented in Table 3.

The results indicated that the PTFE samples, labeled FE1000 Virgin PTFE, met the requirements as specified in 3-A Sanitary Standard Procedure No. 20-27. The scope of this testing does not include verification of Section H5 of the Standard, regarding compliance with FDA regulations and/or FC&C Act requirements.

EAR-CONTROLLED DATA

Report No. ENB012354P-1 February 17, 2012 Page 1 of 5

PTFE Vergine – FE1000

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CSI

DIVISIONE: *DIVISION:* FOOD PACKAGING MATERIALS LABORATORIO: *LABORATORY:* FOOD CONTACTS

RAPPORTO DI PROVA *(Test Report)*	Pag. di/*of* pag.	1 / 10
N° 1201\FPM\FDC\13	Data: *Date:*	22/10/2013

IDENTIFICAZIONE E DESCRIZIONE DEL CAMPIONE:
SPECIMEN DESCRIPTION:

PTFE Rod – cod. L2103150 -TND STA Ø70 PTFE FE 1000 - grain batch number 1012020197- Supplier DUPONT - grain type TEFLON 805

DATI IDENTIFICATIVI DEL CLIENTE:
CLIENT:

GAPI SPA
VIA MOLINARETTI, 2
24060 CASTELLI CALEPIO, 2 (BG)

NORMA DI RIFERIMENTO:
REFERENCE STANDARD:
D.P.R. 777 dated 23/08/1982, D.L. 108 dated 25/01/1992, D.M.34 dated 21/3/73 .
European Directives: 82/711/EEC GUCEE L 297 dated 23/10/82, 85/572/EEC GUCEE L 372 dated 31/12/1985, 93/8/EEC GU L90 dated 14/04/1993, 97/48/EC GUCE L 222 dated 12/8/97. Regulations 1935/2004/EC GUCE L 338 dated 13/11/04 and 1895/2005/EC GUCE L 302 dated 19/11/2005. Regulations 10/2011/EU and following updates.
UNI EN 1186 1+15:2003.

DISTRIBUZIONE ESTERNA: *OUTSIDE DISTRIBUTION:*	DISTRIBUZIONE INTERNA: *INSIDE DISTRIBUTION:*
GAPI SPA	Copy to Division Head

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ACCREDITATION BODY:

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LAB N°0006
Signatory of EA, IAF and ILAC
Mutual Recognition Agreements

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Cap. Soc. € 1.040.000

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