

2018



crosspolimeri



Crosspolimeri SpA

- [Company milestones](#)
- *Technologies*
- *Compounding capacity*
- *Equipments for R&D and Quality certification*
- *Products*

Company milestones

- **1971:** development of 1st industrial SIOPLAS XLPE for pipes & cables by Mr Tittarelli
- **1980:** development of LSZH compounds for cables by Mr Tittarelli
- **1985:** foundation of Crosspolimeri in Italy as producer of special compounds.
- **1990:** development of 1st LSZH SIOPLAS crosslinkable compounds for cables (BS7211)
- **1999:** foundation of Crosspolimeri AG in Switzerland (strategic position in EU) as producer of large volumes of polyolefin compounds
- **2005:** development of LSZH radiation and peroxide crosslinkable compounds (automotive application)
- **2006-2009:** development of compounds for solar & photovoltaic cables (T3 class - 40/125°C):
 - Low Halogen SIOPLAS XLPE
 - Low Halogen PP compound (also for UTW=Ultra thin wires)
 - LSZH SIOPLAS XLPE
 - LSZH PP compound
- **2008:** introduction of HFFR TPO compounds for roofing membranes
- **2008-2010:** development of LSZH rigid PP compounds for pipes, conduits and corrugates pipes. Introduction in the market of Resting master batches.
- **2009:** introduction of hyperconcentrated FR master batches (till 80-85% of MDH) as raw materials for HFFR compounds (for ACP, roofing, cables,...)

- **2010-2013** : development of compounds HFFR oil resistant thermoplastic and crosslinkable types
 - Development a material for automotive cables (T4/Class D -40/150 °C)
 - Development of material for railway rolling stock power and control cables having special fire performance.
 - Developed the material for oil platform (EN50365,IEC60092 SHF2,BS7655,LRS1 and SW3)

- **2014-2015** : development of compounds HFFR diesel resistant and according to NEK606 Norma:
 - Start on the first test to produce TPU materials
 - Development of TPU HFFR matt and glossy surface

- **2016-2017** : development of HFFR thermoplastic and crosslinkable (SIOPLAS system) types to produce compound that meet European Standard **CPR**:
 - Improvement of TPU production system of different recipe

Technologies

- Co-kneaders (Buss-types 45-100-140-200 diameter)
- Co-rotating Twin-screw extruders
- Underwater pelletizing (for extra flexible and sticky compounds)
- Milling equipment for rubber in bale form
- Home designed and home made drying/desiccant stations
- Equipments for packaging under vacuum into Aluminum bags and octabin
- Automatic equipment for packaging under vacuum into Aluminum bags

Compounding capacity

- >24.000 tons/year in Italian plant
- >25.000 tons/year in Swiss plant (close Basel and the German border)

Equipments for R&D and Quality certification

- Fully equipped laboratory for chemical, physical analysis, and for technological tests:
 - Thermal analysis (TGA/DSC also in combination with FT-IR)
 - Capillary rheometer
 - Brabender plastograph
 - Equipment for vertical burning test UL94 and DIN4102
 - Dynamometers for TS/EB, peeling and flexural modulus measurements
 - Cone Calorimeter
 - LOI, MFI, densimeter
- Laboratory scale extruder for production of stripes, pipes and cables

Quality Management System:

ISO 9001:2015

Issued on: 2017/12/15



CISO is a member of



IQNet, the association of the world's first class certification bodies in the regular practice of management System Certification of the world, issues a statement of intent that its member does not accept any substitution of any other body.

CERTIFICATO N. 134
CERTIFICATE N.

Si certifica che il Sistema di Gestione per la Qualità di
We hereby certify that the Quality Management System operated by

CROSSPOLIMERI SPA
sede legale: STRADELLO CANALI 9 - 43038 SALA BAGANZA (PR)
UNITA' OPERATIVE / OPERATIVE UNITS
STRADELLO CANALI, 9 - 43038 SALA BAGANZA (PR)

è conforme alla norma
is in compliance with the standard
UNI EN ISO 9001:2015

per le seguenti attività
for the following activities
IAF14

Progettazione, sviluppo e produzione di compounds termoplastici e reticolabili in forma granulata.
Design, development and production of thermoplastic and crosslinkable compounds in granular form.

Prima emissione First issue 22/12/1995	Emissione corrente Current issue 15/12/2017	Scadenza Expiring date 26/11/2018
--	---	---

Il Direttore Generale
Mauro La Cicca



IIP SRL - via Velleia 2 - 20500 Monza (MB)
www.iip.it info@iip.it




CISO è l'Associazione Italiana di Esperti di Certificazione del Sistema di Gestione per la Qualità (SISTEMA QUALITÀ) e di Esperti di Certificazione del Sistema di Gestione per la Qualità (SISTEMA QUALITÀ).



THE INTERNATIONAL CERTIFICATION NETWORK

CERTIFICATE

CISO/IIP S.r.l.
as an IQNet Partner hereby states that the organization:

CROSSPOLIMERI SPA
legale place: STRADELLO CANALI, 9 - 43038 SALA BAGANZA (PR)
STRADELLO CANALI, 9 - 43038 SALA BAGANZA (PR)

for the following scope:
Design, development and production of thermoplastic and crosslinkable compounds in granular form.

has implemented and maintains a
Quality Management System
which fulfills the requirements of the following standard
ISO 9001:2015

Issued on: 2017/12/15
First issued on: 1995/12/22
for the validity date, please refer to the original certificate* issued by CISO/IIP

Registration Number:
IT-3579 IIP 134




Alex Stovchitina
President of IQNET

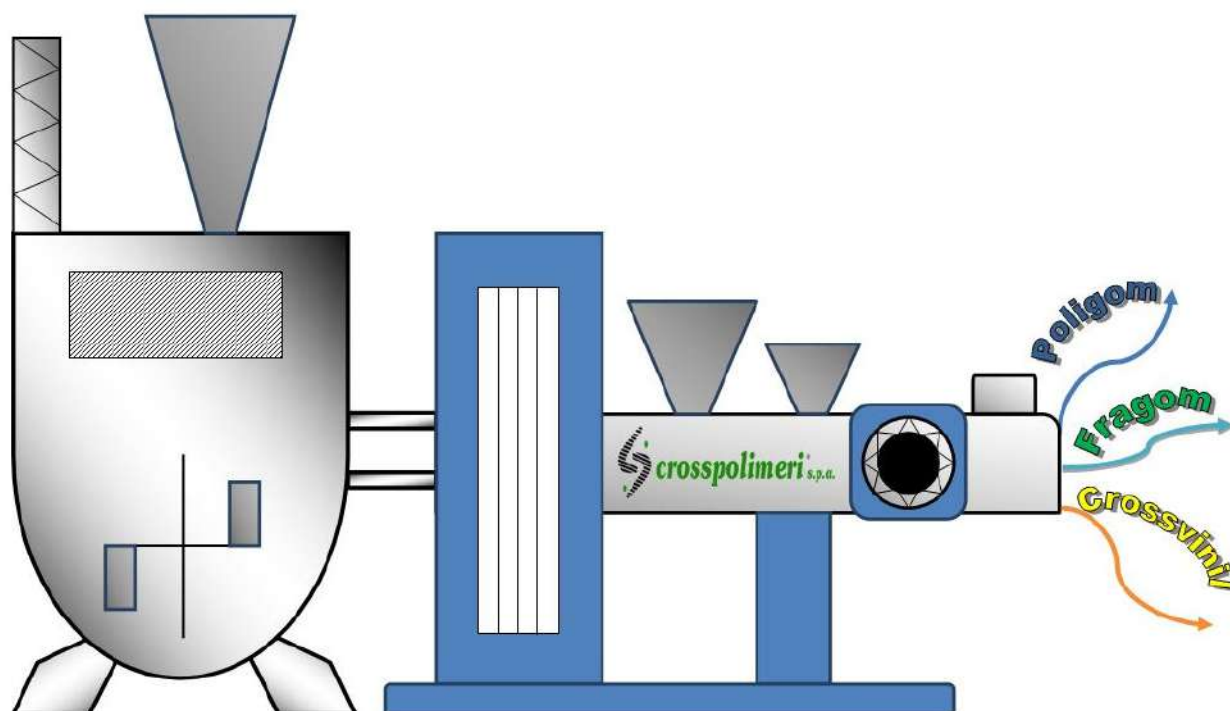



Ing. Claudio Proveti
President of CISO

IQNet Partners**
 AENOR Spain AFNOR Certification France APCEK Portugal CCC Cyprus CISO Italy
 CQC China CQM China UQS Czech Republic Cto CertiCert DQS Holding GmbH Germany FCV Brazil
 FPOKOR Roma Romania IIC INTERTek Colombia Inspira Certification France INTERO Costa Rica
 IRAM Argentina IQA Japan KJK Korea MIRLEC Greece MSZ Hungary Nemko AS Norway NSAI Ireland INCB Poland
 Quality Austria Russia SRG Mexico SII Jermol SRJ Vietnam SRM QMS International Slovakia
 SCS Switzerland SBAC Romania TEST Sp. Petersburg Austria TSE Turkey Virex Italia Bulgaria YUKG Serbia
 IQNet is represented in the USA by: AENOR Certification, CISO, DQS Holding GmbH and NSAI Inc.

* This attestation is directly linked to the IQNet Partner's original certificate and shall not be used as a stand-alone document
 ** The list of IQNet partners is valid at the time of issue of this certificate. Updated information is available under www.iqnet-certification.com

Products



C rossvinil	Page. 9
E frhatan	Page. 10
E pigum	Page. 11
E tilgum	Page. 12
F rabur	Page. 13
F ragom G	Page. 14
F ragom PR	Page. 15
F raroof	Page. 16
F rabond	Page. 16
G etilan	Page. 17
P oligom	Page. 18
R esting	Page. 19
T anegum	Page. 20
T relgum	Page. 20

IS THE TRADE-MARK OF OUR COMPOUNDS BASED PVC SUITABLE FOR EXTRUSION OF CABLES, PIPES AND PROFILES PVC BASE

Main Features:

- The product is available in a wide range of SHORE HARDNESS
- The product has excellent resistance to oils (OR = Oil Resistant compound)
- The product provides excellent resistance in a range of high temperatures (from -40°C to +125°C)
- The product is characterized by a Low Emission of Smoke (LSF = Low Smoke and HCl Fume compounds)
- The product provides excellent resistance to hydrocarbons

Application Fields:

- Automotive Cables T1-T2-T3 type, comply with the STANDARDS ISO, LV, FIAT, GMW with features within the values TM3, TM5, FT4, TI3 (in compliance with regulations RoHS, REACH SVHC)
- The product has excellent resistance to oils (OR = Oil Resistant compound)
- The product is ideal for the extrusion of cables insulation (Regulations: YI1 YI2)
- The product is ideal for the extrusion of cable sheaths (Regulations: TM1-ST2))

* It's also developed and put in place special series such as:

- **FR:** Flame Retardant Compounds with excellent flame and oils resistance
- **LFS :** compounds with low toxicity, low smoke and low HCl emission (Low Smoke Fume compound)

TYPE	APPLICATION	DENSITY	Shore A	LOI	NOTES
EK/0 TPZ	FLAME RESISTANT AUTOMOTIVE CABLE INSULATION	1,37	61 D	26	FIAT 7.Z8220 T2,ISO 6722 Class B,LV 112
EK/1 TPZ	FLAME RESISTANT AUTOMOTIVE CABLE INSULATION	1,33	95	26	FIAT 7.Z8220 T2,ISO 6722 Class B
EK/10 EZ	CABLE INSULATION	1,47	88		YI1,YI5,YM1
EK/105 TI3	CABLE INSULATION	1,32	93		CEI 2011 TI3,BS 6746 TI3
EK/105 TM3	CABLE INSULATION AND SHEATHING	1,33	82		CEI 2011 TM3,BS 6746 TI3/TM3
EK/1K	CABLE SHEATHING	1,39	88		BS6746 Type 9,VDE 0207 Type YM5
EK/2 AZC	CABLE SHEATHING	1,59	88	35	IEC 60502 ST2 90°C,IEC 60332-3-22 Cat A
EK/2 AZOR UV	FLAME RESISTANT CABLE	1,60	85	35	CEI 2011 TM3,BS 7655 TM3, VDE 0207 YM4,IEC 60332-3, IEC 60502 ST1 80°C - ST2 90°C.
EK/20 EZ	CABLE SHEATHING	1,45	82		YI2,YM2
EK/3 AZC	CABLE SHEATHING	1.60	87	35	CEI 2011 RZ
EK/3 AZ	FLAME RESISTANT CABLE EXTRUSION	1,48	86	33	CEI 2011 R-RZ
EK/3C LA	CABLE SHEATHING	1,56	90	35	CEI 2011 RZ, CEI 2037
EK/500 1Z	FLAME RESISTANT AUTOMOTIVE CABLE INSULATION	1,33	95	26	FIAT 7.Z8220 T3,ISO 6722 Class C
EK/7517 CPR	CABLE SHEATHING	1,54	90	35	CEI EN 50363-0
EK/8 Z GRIGIO 7001	CABLE SHEATHING	1,40	80		CEI 2011 TM5
EK/82 AZ	CABLE INSULATION	1,48	92	30	CEI 2011 R2
EK/PZ	FLAME RESISTANT AUTOMOTIVE CABLE INSULATION	1,33	92	25	FIAT 7.Z8220 T1,ISO 6722 Class A
K/100 PLA3	FLAME RESISTANT CABLE	1,51	91	32	CEI 2022 R-RZ,CEI 2037
ME/8 P	FLEXIBLE CABLE INSULATION AND SHEATHING	1,26	73		ENI 018100
ME/85 PA	CABLE SHEATHING	1,42	82	30	ENI 018100,IEC 60332-3,IEC 60502-1 ST2
RCF/AZ GRIGIO	FLAME RESISTANT CABLE	1,90	90	40	Filler

IS THE TRADE-MARK OF OUR POLYURETHANE, POLYESTER AND POLYETHER BASE

Main Features:

- The product is available in a wide range of SHORE HARDNESS
- The product has excellent resistance to oils (OR = Oil Resistant compound)
- The product provides excellent abrasion resistance
- The product provides excellent resistance to Saponification / Hydrolysis
- The product provides excellent resistance in a range of high temperatures (from -40°C to +105°C)
- The product is also available in flame retardant HFFR (Halogen Free Flame Retardant) halogen-free (Halogen Free)version
- The product provides excellent resistance to hydrocarbons

Application Fields:

- Ideal for extrusion of technical CABLES (sheath and insulation)
- Ideal for cables sheathing extrusion in Automotive Industry
- Shoes and Injection

TYPE	APPLICATION	DENSITY	Shore A	LOI	NOTES
188 A	CABLE SHEATHING	1,23	88	V0	UL 1581 FT1
55 D	FLEXIBLE SHEATHING	1,22	55 (1)		Guaine e Tubi/ Sheathing and Pipes
702	CABLE SHEATHING	1,28	87		H07BQ-F COMPRESSION EXTRUSION
72 AM	CABLE SHEATHING	1,22	88		IEC 60332-1
72 L1	CABLE SHEATHING	1,28	88		H07BQ-F BIG CABLES
72 M	CABLE SHEATHING	1,22	88		H07BQ-F BIG CABLES
75 P	EXTRUSION AND MOULDING	1,13	75		Suole e Stampaggio/Shoes and Injection
83/3	CABLE INSULATION	1,16	88		Isolamento Cavi/Cables Insulation
853 AM	CABLE SHEATHING	1,16	87		H07BQ-F,H05BQ-F EASY EXTRUSION
853 M	CABLE SHEATHING	1,13	87		HD 22 10,VDE 0282-10
88 A	FLAME RESISTANT CABLE	1,24	88	V0	UL 1581FT1
89	CABLE SHEATHING	1,18	88		IEC 60332-1 CAVI GROSSI_BIG CABLES
90 A4 05	FLAME RESISTANT CABLE	1,24	92	V0	UL 1581 VW-1
95 A4 05	CABLE SHEATHING	1,29	95	27	HD 221,VDE 0282-10,UL 1581 VW-1,IEC 60332-3

TRADE-MARK OF OUR THERMOPLASTIC RUBBER

(Vulcanized Thermoplastic Compounds (TPV) obtained by reactive extrusion of polypropylene and EPDM crosslinkable)

Main Features:

- The product is available in a wide range of SHORE HARDNESS
- The product is characterized by excellent resistance to atmospheric agents
- The product provides good resistance to High Frequencies
- Some product type provides an exceptional Oil Resistance (OR)
- Some type of product are ideal for direct contact with food (trademark registered with the Food & Drug Administration approval)
- The product is suitable for the overmolding of TECHNOPOLYMERS as PA (Polyamide) and ABS (Acrylonitrile Butadiene Styrene)
- The product provides excellent resistance to hydrocarbons
- The product is also characterized by a particularly low value of Specific Gravity

Application Fields:

- Suitable for the extrusion of gaskets for doors, windows and home appliances
- Suitable for use in the Auto Industry: Automotive Cables and interior parts
- Suitable for creating soft touch grips for various uses tools

TYPE	APPLICATION	DENSITY	Shore A	NOTES
DPE/40 D	EXTRUSION AND MOULDING	0,96	40 (1)	TPV
DPE/50 1	EXTRUSION AND MOULDING	0,95	50	TPV
DPE/50 D	EXTRUSION AND MOULDING	0,93	50 (1)	TPV
DPE/64	EXTRUSION AND MOULDING	0,96	66	TPV
DPE/73	EXTRUSION AND MOULDING	0,96	73	TPV
DPE/87	EXTRUSION AND MOULDING	0,95	87	TPV
EXP/5065	EXTRUSION AND MOULDING	0,98	65 (1)	TPE
EXP/53	CABLE INSULATION	0,90	60 (1)	VDE0207-2 9YI2
EXP/7030 NAT	CABLE INSULATION AND SHEATHING	0,90	60(1)	VDE0207-2 2YI2

(1) Shore D

TRADE MARK OF OUR TECHNOPOLYMERS RUBBER MODIFIED (MDPVC)

Main Features:

- The product synthesizes best characteristics properties of rubbers and plastics materials
- The product provides an excellent oils resistance (OR = Oil Resistant compound)
- The product provides an excellent resistance to deformation and compression
- The product provides an excellent resistance to flexural strength and abrasion
- The product is characterized by an excellent keeping of its flexibility and elasticity in a particularly wide range of temperatures (from -50°C to +105°C)
- The product provides excellent resistance to hydrocarbons

Application fields:

- The product is suitable for co-extrusion with rigid PVC
- The product is suitable for the extrusion of gaskets for windows, doors and home appliances in general
- The product is suitable for the extrusion of technical articles

TYPE	APPLICATION	DENSITY	Shore A	NOTES
ME/0 P2Z	FLEXIBLE CABLE INSULATION AND SHEATHING	1.18	50	
ME/15 P 2ZS	FLEXIBLE SHEATHING	1,21	66	AS/NZ 3808 Type 5V-90
ME/15 P2Z	FLEXIBLE SHEATHING	1.21	66	
ME/45 2SZ	FLEXIBLE SHEATHING	1,29	60	Cavi Solari/Solar Pannel
ME/45 2Z	FLEXIBLE CABLE INSULATION AND SHEATHING	1.29	60	

**TRADE-MARK OF OUR THERMOPLASTIC COMPOUNDS WITH CHARACTER OF HIGH POWER FLAME RETARDANT, WITHOUT HALOGEN AND HEAVY METALS
(RoHS, REACH and SVCH regulations)**

Main Features:

- The product is an Halogen Free Flame retardant compound (HFFR) with Low Toxic Fumes
- The product is a compound without Halogen component (Halogen Free) and without heavy metals
- The product is available in a wide range of Specific Gravity and with various levels of Flame Retardant (HFFR) characteristic
- The product is easily processable re-processable as recyclable. It can be processed with single screw extruders equipped with screws for polyethylene or with low compression screws (such as those for the rubber))

Application fields:

- Suitable as a filler for multi-core cables

TYPE	APPLICATION	DENSITY	LOI	NOTES
50 CPR	FILLING MASS ON POLYOLEFINIC BASIS	1,68	39	BS6724
50 NAT	FILLING MASS ON POLYOLEFINIC BASIS	1,70	39	BS 6724, BS 7211

TRADE-MARK OF OUR HALOGEN FREE FLAME RETARDANT COMPOUNDS CROSSLINKABLE WITH SILANE TECHNOLOGY (SIOPLAS system)

Main Features:

- The product is a Flame Retardant Compound (FR) with Low Toxic Fumes production
- The product is a compound without Halogen component (Halogen Free) and without heavy metals
- The product is available with different values of crosslinking and flame resistance (HFFR, HFLS, FROH)
- The product doesn't require vulcanization lines in nitrogen or steam
- The crosslinking at room temperature (in the presence of moisture) takes place in a time that goes from 5 to 15 days. The tests of Hot Set Test (HST) give a positive result both at 200°C and at 250°C
- The product is available in a wide range of SHORE HARDNESS
- The product provides a good resistance in a range of high temperatures (from -40°C to +125°C)
- The product is PVC and plasticizers free
- The product provides excellent resistance to hydrocarbons
- The product complies with the directives of the Community Regulations RoHS, REACH and SVHC

Application fields:

- The product is suitable for cables insulation production
- The product is suitable for flexible sheaths producing XHEPR-XEPR
- The product is suitable for multi-layer cables production through SIOPLAS technology
- The product is suitable for the production of cables used in applications for ships and generally marine applications
- The product is suitable for the production of cables employed in the railways and tramway industry
- The product is suitable for the production of cables used in petrochemical industry

TYPE	APPLICATION	Shore D	LOI	NOTES
G/2000 1	CABLE INSULATION AND SHEATHING	50	23	GOST 305
G/458 ES	CABLE INSULATION AND SHEATHING	45	32	VDE0207-24HM3,BS7655EI5,CEI2011 M2-G10-G9,AZ/NZSX-HF-110,R-HF-110
G/459 20	FLAME RESISTANT CABLE	42	30	BS7211 EI5,BS4066,VDE0207HM1,IEC332-3
G/471 NAT	CABLE INSULATION AND SHEATHING	37	34	BS7211 EI5,VDE0207 HJ1,CEI 2011 M2-G10
G/478 NAT	FLAME RESISTANT CABLE	38	34	BS7211 EI5,VDE0207 HJ1,AZ/NZS R-HF-110,CEI 2011 G10-M2
G/900 OR	FLAME RESISTANT CABLE	32	27	EN 50363-6 EM8,IEC 60092-359 SHF2,BS7655-2.6:2000 SW4
G/930 R	FLEXIBLE SHEATHING	36	24	SAE J1127/J1128,FIAT 7.Z8220 T3 -T3 S,ISO 6722 Class C
G/990 XA	FLAME RESISTANT CABLE	50	30	VDE0207-24 HM3,CEI 2011 M2-EM2,IEC 60092-359 SHF2,IEC 332-1,TUV
G/991 XA	CABLE INSULATION AND SHEATHING	45	32	VDE 0207-24 HM3, BS 7655 EI5, CEI 2011 M2-EM2, IEC 60092-359 SHF2,TUV,BS7655-2.6:2000 SW4,NEK 606
G/991 XA1 NAT	FLEXIBLE CABLE INSULATION AND SHEATHING	42	32	VDE 0207-24 HM3, BS 7655 EI5, CEI 2011 M2-EM2, IEC 60092-359 SHF2
GR/22 PP	FLAME RESISTANT AUTOMOTIVE CABLE INSULATION	58	27	ISO 6722 Class C,FIAT 7.Z8220 T3 -T3 S,SAE J1127/J1128, LV112
LC/125 RR	FLAME RESISTANT AUTOMOTIVE CABLE INSULATION	50	27	SAE J1127/J1128,FIAT 7.Z8220 T3 -T3 S,ISO 6722 Class C,LV 112
LC/3013 RR	FLAME RESISTANT AUTOMOTIVE CABLE INSULATION	51	26	SAE J1127/J1128,FIAT 7.Z8220 T3 -T3 S,ISO 6722 Class C,LV 112
LCX/3013	FLAME RESISTANT AUTOMOTIVE CABLE INSULATION	56	25	SAE J1127/J1128,FIAT 7.Z8220 T3 -T3 S,ISO 6722 -LV 112 Class C
XLC/125 R	FLAME RESISTANT AUTOMOTIVE CABLE INSULATION	50	27	SAE J1127/J1128,FIAT 7.Z8220 T3 -T3 S,ISO 6722 Class C,LV 112
XLC/900 OR	FLAME RESISTANT CABLE	33	38	CEI 2011 M2,VDE0207 HM3,BS7655 LRS1-SW4

TRADE-MARK OF OUR THERMOPLASTIC POLYETHYLENE AND POLYOLEFINS BASE COMPOUNDS

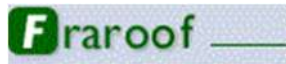
Main Features:

- The product is a Flame Retardant Compound (FR) with Low Toxic Fumes production (LSF)
- The product is a compound without Halogen component (Halogen Free)
- The product is available in a wide range of SHORE HARDNESS and viscosity
- The product is easily processable re-processable as recyclable. It can be processed with single screw extruders or double screw extruder equipped with screws for PVC or with low compression screws
- The product has excellent resistance to oils (OR = Oil Resistant compound)
- Some types of product can be crosslinked by radiation (e-beam) or by radical initiators *This feature is request by the quality standard BS7655-SHF2 SW3, SW4 (high resistance to hot oils)*
- The product provides excellent resistance to hydrocarbons
- The product complies with the directives of the Community Regulations RoHS, REACH and SVHC

Application Fields:

- The product is suitable for cables insulation and sheathing production
- The product is suitable for multi-layer cables production through SIOPLAS technology
- The product is suitable for the production of cables used in applications for ships and generally marine applications
- The product is suitable for the production of cables employed in the railways and tramway industry
- The product is suitable for the production of cables used in petrochemical industry

TYPE	APPLICATION	Sh. D	LOI	NOTES
PR/04 AFKK N	CABLE INSULATION AND SHEATHING	53	30	CEI2011 M1,VDE0207HM4(K=0,7),BS7655 LTS 3-4
PR/04 AFKK N NAT UV	FLAME RESISTANT CABLE	55	30	CEI2011 M1,VDE0207HM4(K=0,7),BS7655 LTS 3-4
PR/04 AFKN NERO UP	CABLE INSULATION AND SHEATHING	52	30	CEI 2011 M1, VDE 0207 HM2-HM4, BS7655 LTS1-LTS2-LTS3-LTS4
PR/0500	FLEXIBLE SHEATHING	37	35	EN 50363-8(2005) TM7,CEI 2011 M1
PR/0500 CPR	CABLE SHEATHING	39	37	EN 50363-8 TM7
PR/112 HFR	FLAME RESISTANT AUTOMOTIVE CABLE INSULATION	58	27	FIAT 7,Z8220 T3 ,ISO 6722-LV 112 Class C
PR/112 RF	FLAME RESISTANT AUTOMOTIVE CABLE INSULATION	55	27	LV 112-ISO 6722 Class C,FIAT 7.Z8220 T3
PR/112 RFB	FLEXIBLE SHEATHING	47	25	UL 1581
PR/112 UTW	FLAME RESISTANT AUTOMOTIVE CABLE INSULATION	58	27	LV112- ISO 6722 Class C, FIAT 7.Z8220 T3 (Ultra Sottili / Ultra Tin)
PR/399	CABLE INSULATION AND SHEATHING	46	40	CEI2011 M1,VDE0207 HM2
PR/420 CPR	CABLE SHEATHING	55	>43	VDE0207 HM4,BS7655 LTS 1-3-4,IEC 60502-1 ST8,IEC 60332-3-24 CAT C
PR/420 K1	FLAME RESISTANT CABLE	53	>42	VDE0207 HM4(K=0,6),BS7655 LTS 1-3-4,IEC 60502-1 ST8,IEC 60332-3-24 CAT C
PR/420 NAT P	FLAME RESISTANT CABLE	53	43	CEI2011 M1,VDE0207 HM4(K=0,6),BS7655 LTS 1-3-4,IEC 60502-1 ST8
PR/55 PP	PIPES AND CHANNELS	63	30	
PR/550	FLAME RESISTANT CABLE	47	35	CEI2011 M1,VDE0207 HM2,BS7655 LTS1
PR/555 CPR	CABLE INSULATION AND SHEATHING	53	37	CEI2011 M1,VDE0207 HM2-HM4
PR/555 K1	FLAME RESISTANT CABLE	51	>35	VDE0207 HM2-HM4,IEC60092-359 SHF1,BS7655 LTS1-2-3-4,EN50363 TI6
PR/6 92	FLAME RESISTANT CABLE	51	37	CEI 2011TM9,CEI 2022 II/III
PR/6 92 UV NERO	FLAME RESISTANT CABLE	51	37	CEI 2011 TM9, CEI 2022 II/III
PR/6 AMR	FLAME RESISTANT CABLE	54	40	M1 CEI 2022 II
PR/720	FLAME RESISTANT CABLE	52	40	CEI2011M1,BS7655LTS1-2-3-4,VDE HM4(K=0,6)
PR/721	CABLE SHEATHING	46	40	CEI 2011 M1,VDE 0207 HM2,BS 7655 LTS1-LTS3
PR/800	FLEXIBLE CABLE INSULATION AND SHEATHING	39	40	CEI2022 II/III,BS4066
PR/900	FLEXIBLE CABLE INSULATION AND SHEATHING	45	42	CEI2011M1,BS7655LTS1-3,VDE HM2
PR/EUP ECO	FLAME RESISTANT CABLE	36	29	General purposes
PR/OX2V	FLAME RESISTANT CABLE	38	26	TI6- EN50363 TM7



TRADE-MARK OF OUR THERMOPLASTIC, HALOGEN FREE, FLAME RETARDANT, LOW SMOKE COMPOUND FOR ROOFING MEMBRANES

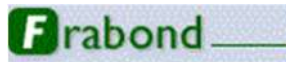
Main Features:

- The product is a Polyolefin based compounds (TPO type)
- The product is an Hydroxides based compounds (ATH, MDH, natural filler)
- The product has an excellent weldability with common technologies
- The product is thermally and UV-stabilized in black, grey and white colour

- The product is suitable for all kinds of extrusion lines (also lines extruding PVC sheets)

Application fields:

- The product is suitable for extrusion of flame retardant and water proofing membranes according to **Broof T1-T2-T3 class**
-
-



**TRADE-MARK OF OUR THERMOPLASTIC, HALOGEN FREE, FLAME RETARDANT COMPOUND FOR FR ALUMINIUM COMPOSITE PANELS
EURONORM B1-EURONORM A2**

Main Features:

- The product is a Polyolefin, polypropylene based compounds (LDPE, LLDPE, EVA, PP)
- The product is an Hydroxides based compounds (ATH, MDH, natural filler)
- The product has an excellent and consistent peeling strength with all kinds of adhesives and tie-layers
- The product is suitable for all kind of extrusion lines (single screw extruders, twin-screw extruders corotating and counterrotating, co-kneders)

Application fields:

- The product is suitable for FR Aluminum Composite panels according to **EURONORM B1**
- The product is suitable for special FR Aluminum Composite panels according to **EURONORM A2**

TRADE-MARK OFF OUR POLYETHYLENE BASED COMPOUNDS, POLYOLEFINS CROSSLINKABLE BY SILANE TECHNOLOGY (SIOPLAS system)

Main Features:

- The product is a compound without Halogen component (Halogen Free)
- The crosslinking at room temperature (in the presence of moisture) takes place in a time that goes from 5 to 15 days. The tests of Hot Set Test (HST) give a positive result both at 200°C than at 250°C
- The product is available in a wide range of SHORE HARDNESS
- The product is processable with extruder equipped with PVC or PE screw
- The product is characterized by a great use simplicity
- The product is characterized by an high crosslinkable speed temperature (in weather temperature and humidity)
- The product is characterized by an excellent keeping of its characteristics in a wide range of temperatures (from -40°C to +150°C)
- The product is also available in flame retardant and ultra-stabilized version used for production of special cables for household appliances, Automotiver Cables, Photovoltaic system, Solar panel and Wind Power plant
- The product is also characterized by a particularly low value of Specific Gravity
- The product complies with the directives of the Community Regulations RoHS, REACH and SVHC

Application Fields:

- The product is suitable for the production of cables insulation for Low and Medium Voltage
- The product is suitable for the production of single-layer pipes and multilayer pipes
- Some types of product are specialized in special cables production for Automotive industry
- The product is suitable for insulation or submersible pumps cables
- The product is suitable for the production of insulation for heating cables

TYPE	APPLICATION	Shore D	FLAME RETARDANT	NOTES
ATP/03 NATURALE	FLEXIBLE PIPE	43	NO	
ATP/125 PX	CABLE INSULATION	61	NO	HD 626 S1-TMX1
ATP/130 XP	EXTRUSION HIGH DENSITY PIPES	62	NO	DIN 16892
ATP/130 XPE	CABLE INSULATION	58	NO	HD 626 S1-TMX1
ATP/190 3AP	FLAME RESISTANT AUTOMOTIVE CABLE INSULATION	59	S/Y	SAE J1127/J1128,FIAT 7.Z8220 T3 -T3 S,ISO 6722 -LV 112 Class C
ATP/190 X 1 SC	CABLE INSULATION	60	NO	SAE J1127/J1128,FIAT 7.Z8220 T3 -T3 S,ISO 6722 Class C,LV 112
ATP/194 P	FLAME RESISTANT AUTOMOTIVE CABLE INSULATION	62	S/Y	SAE J1127/J1128,ISO 6722,LV 112 Class D,FIAT 7-Z8220 T4
ATP/195	FLAME RESISTANT AUTOMOTIVE CABLE INSULATION	55	S/Y	SAE J1127/J1128,ISO 6722 Class D,LV 112 Class D,FIAT 7-Z8220 T4
GPE/134 R	CABLE INSULATION	60	NO	ISO 6722 Class D,SAE J1127/J1128,FIAT 7-Z8220 T4
GPE/150 LE-LS	LOW TENSION CABLE INSULATION	54	NO	BS 7655 GP8,IEC502 XLPE
GPE/400 G	INSULATION LOW AND MEDIUM TENSION CABLES	48	NO	IEC 60502-1 XLPE, EPR/HEPR,CEI 2011 G7,HD 22-1 EI7
GPE/400 XT2N	LOW TENSION CABLE INSULATION	56	NO	IEC 502 XLPE,CEI 2011 G7
GPE/409 AFM	FLAME RESISTANT CABLE	52	S/Y	CEI 2011 G10,VDE0207 2XI1
GPE/410 AF	FLAME RESISTANT CABLE	53	S/Y	CEI 2011 G10,VDE0207 2XI1
GPE/452 BLACK P	OUTDOOR CABLE INSULATION (2,5% CARBON BLACK)	56	NO	HD 626 S1 TIX 7, NF C 33-209
MAC/900	SEMICONDUCTIVE COMPOUND	54	NO	Semiconduttivo Interno Reticolabile/Internal Semiconductive Crosslinkable
PE/502	CABLE INSULATION		NO	Isolamento Espanso/Foam insulation

TRADE-MARK OF OUR RUBBER BASED COMPOUNDS CROSSLINKABLE WITH SIOPLAS TECHNOLOGY (EPDM-EPR-HEPR)

Main Features:

- The product is available in a wide range of SHORE HARDNESS
- The product is available with feature of flame retardant thermoplastic, halogen-free and exceptional flexibility
- The product is available with high level of tensile strength, excellent levels of tear strength and free plasticizers (XEPR-XHEPR)

(This quality enables a prolonged maintenance of their characteristics over time)

- The product is also characterized by a particularly low value of Specific Gravity

Application Fields:

- The product is suitable for the production of insulation and sheath for electric cables in low and medium voltage (LV-MV). Feature of high flexibility

TYPE	APPLICATION	SHORE A	ELONGATION AT BREAK %	FLAME RETARDANT	NOTES
04/AF	FLEXIBLE CABLE INSULATION AND SHEATHING	85	125	YES	VDE0207 HJ2,AS/NZS 3008:2000,HFI-75-TP,HFI-90-TP,HFS-75-TP,HFS-90-TP,HFS-110-TP
04/AF 2	FLAME RESISTANT CABLE	92	150	YES	TI6,TM7,VDE 0207 HM4(K=0,7),AS/NZS 3808:2000 HFI 75-90 TP,HFS 75-90-110 TP,IEC 60092-359 SHF1
04/AF3	FLEXIBLE CABLE INSULATION AND SHEATHING	41 (D)	>200	YES	TI6,TM7,VDE 0207 HM4(K=0,7),AS/NZS 3808:2000 HFI 75-90 TP,HFS 75-90-110 TP,IEC 60092-359 SHF1
G/30	FLEXIBLE CABLE INSULATION AND SHEATHING	82	800	NO	HD22.1 S3 EI4-EI6 ,EN50363-2-1 EM6, AS/NZS 3808:2000 X-90,R-E-110
G/30 BIANCO	FLEXIBLE CABLE INSULATION AND SHEATHING	82	800	NO	HD22.1 EI4 , AS/NZS 3808:2000 X-90,R-E-110
G/30 C	CABLE INSULATION	80	600	NO	HD22.1 S3 EI4-EI6, AS/NZS 3808:2000 X-90,R-E-110
G/30 CS	CABLE INSULATION AND SHEATHING	86	>500	NO	HD22.1 S3 EI4-EI6 , AS/NZS 3808:2000 X-90,R-E-110
G/35	FLEXIBLE CABLE INSULATION AND SHEATHING	72	500	NO	Termoplastico/Thermoplastic AU/NZS 3808 TPE-75,GP-75-TPE
G/40	CABLE INSULATION AND SHEATHING	80	450	NO	BS 7655 GP4-GP5-GP7,HD22.1 EI4-EI6-EI7
G/42	CABLE INSULATION AND SHEATHING	90	450	NO	EN 50363-0 G7,BS 7655 GP4-GP5-GP6-GP7,HD 22.1 EI7
G/44	FLEXIBLE CABLE INSULATION AND SHEATHING	67	450	NO	HD 22,1 EI4-EI6-EI7-EM3,VDE 0207/20 3GI3,BS 7655 RS5-GP7
G/7 CPR	LOW TENSION CABLE INSULATION G7 TYPE	95	>250	NO	EN 50363-0 G7,BS 7655 GP4-GP5-GP6-GP7,HD 22.1 EI7
GO/10	FLEXIBLE CABLE INSULATION AND SHEATHING	82	300	NO	HD22.1 EM2,BS7655 RS4
GO/12 R	FLEXIBLE CABLE INSULATION AND SHEATHING	94	300	NO	HD22.1 EM2,BS7655 RS4,UL 62 105°C
PR/50	FLEXIBLE SHEATHING	50	700	NO	Guaina Cristallo/Crystal Sheath
R/75	LOW TENSION CABLE INSULATION G7 TYPE	92	750	NO	CEI 2011 G7,IEC 60502-1 HEPR,TUV

IS THE TRADE MARK OF OUR FLAME RETARDANT, ANTIOXIDANT, UV RESISTANT, MOUSE/TERMITES RESISTANT MASTERS AND OF SOME VERY SPECIAL COMPOUNDS

Main Features :

- The flame retardant types contain bromine
- The antioxidant mixture types are HF
- The mouse/termites type is HF
- The RESTING are in compliance with regulations RoHS, REACH SVHC

Application fields:

- The products are suitable for extrusion
- The products are suitable for injection moulding
- The products are suitable for the extrusion of technical articles

TYPE	APPLICATION	DENSITY	NOTES
HA 13 A	FLAME RETARDANT FOR AUTOMOTIVE CABLES T3/Class C	2	HDPE/PP BASE
HA G 120	NORMAL FLAME RETARDANT CABLES	2	POLYETHYLENE BASE
HA G 121	FLAME RETARDANT FOR FLEXIBLE BATTERY CABLES	1,55	POLYETHYLENE BASE
HF G 146	UV RESISTANT CABLES SHEATHING INCLUDED SOLAR APPLICATION	1,20	POLYETHYLENE BASE
HF 44	ANTIOXIDANT MIXTURE TO INCREASE THE AGING RESISTANCE	1,21	POLYETHYLENE BASE
HF G 134	ANTIOXIDANT MIXTURE FOR AUTOMOTIVE CABLES T4/Class D	1,20	POLYETHYLENE BASE
HF TR	MOUSE / TERMITES RESISTANT	1,20	POLYMER BASE

TRADE-MARK OF OUR TECHNOPOLYMERS (MDPVC) POLYURETHANE MODIFIED (PU)

Main Features:

- The product has a good environmental resistance
- The product has a good abrasion and flexibility resistance
- The product has the advantages of Polyurethane (PU) with an higher extrudibility capacity
- The product has a good Ozone resistance, good hydrocarbons resistance, oils, greases and fuels resistance

Application fields:

- The product is suitable for electrical cables production used in external environment
- The product is suitable for pipes production used in external environment

TYPE	APPLICATION	DENSITY	Shore A	NOTES
ME/84 UA	FLAME RESISTANT CABLE	1,27	84	UL758 80 90 °C, UL VW1
ME/85 U2 SA	FLAME RESISTANT CABLE	1.30	80	
ME/87 U2	FLEXIBLE CABLE INSULATION AND SHEATHING	1,23	86	

TRADE- MARK OF OUR POLYESTER MODIFIED TECHNOPOLYMERS (MDPVC) WITH RUBBER FEATURES

Main Features:

- The product has a good deformation and compression resistance
- The product has a good flexural strength and abrasion resistance
- The product has a good environmental resistance
- The product has an excellent oils resistance and chemicals resistance generally
- The product keep its flexibility and elasticity features within a wide temperature range (from -50°C to +100°C)

Application fields:

- The product is suitable for the production of cables used on Automation and Robotics industries
- The product is suitable for the production of cables used in very low temperature environments (refrigerator room)

TYPE	APPLICATION	DENSITY	Shore A	NOTES
ME/87 DP 2Z	FLEXIBLE CABLE INSULATION AND SHEATHING	1,20	87	
ME/9 DP 2Z	FLEXIBLE CABLE INSULATION AND SHEATHING	1.18	71	
ME/9 DP2 AAZ	FLAME RESISTANT CABLE	1,20	73	
ME/9DP2 3AZ	FLEXIBLE SHEATHING	1,21	73	