Advanced Materials

Wire, Cable and Electrical Applications

alphagary

orbia | Polymer Solutions

- Our facilities in Mexico are designed for the production of PVC compounds and plasticizers for a wide variety of applications, with onsite R&D capabilities to aid in specialized material design.
- Enhanced performance features such as UV resistance, chemical resistance and fungus resistance available
- REACH, RoHS and Prop 65 compliant grades.
- Advancing Life Around the World in Mexico! We make our processes more efficient and sustainable every year such as in our Altamira facility where we increased our production levels and reduced CO_2 emissions by 1,000 TON CO_2eq/year.

Compounds designed to build safe cables

From material selection through testing, scale-up and production, our hands-on expertise in the wire & cable space thrives due to cooperative partnerships with our customers, long after product approval. All together these principles translate to safety-in how we formulate, manufacture and support ongoing production as you build cables out of materiales designed with integrity.

- Global fire tests standards expertise
- Broad and wide material portfolio
- Global operation expertise
- Dedicated R&D team
- Formulation integrity
- REACH, RoHS and Prop 65 reporting transparency

Typical applications

We've designed a robust material portfolio, giving options to engineers as you build cables to provide data energy and power, control signals and other functions while adhering to strict fire performance standards. Applications include:

- Network, LAN, ethernet
- Communications, telecom, datacom
- Enterprise, data center
- Coaxial, twisted pair, category, tray
- Transportation, EV automotive
- Infrastructure: indoor/outdoor, premise
- Hybrid, specialty fire alarm
- Power, control, signal
- Energy, utility solar
- Industrial automation, robotics
- Agriculture AI
- Electronic, electrical
- Defense, aerospace
- Healthcare
- Building, welding, appliance, heat-tracing
- Flexible cod, flat ribbon, coil cord



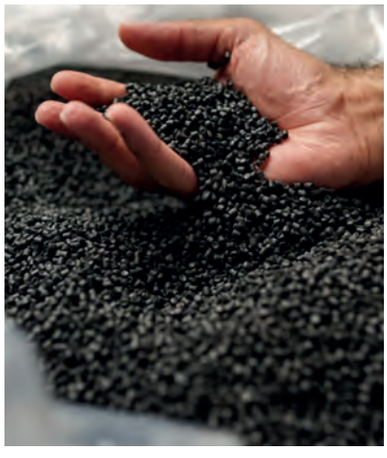





Compound	Temperature	Hardness (shore)	Specific gravity	Tensile Strenght (Kg_f/mm^2)	Elongation %	LOI(%)	Characteristics
Polivisol 1721 AF	60°C	A 78	1,43	165,00	350,00	29,00	Cable insulation and jacket, flame resistant, TW, QMTT2 UL listed. RoHS
Polivisol 1722 AF	60°C	A 78	1,42	160,00	350,00	28,00	Cable insulation and jacket, flame resistant, TW, DEHP free, RoHS
Polivisol 1723 AF	60°C	A 79	1,49	163,00	283,00	29,00	TW, flame resistant, used for extensions and appliances
Polivisol 1729	60°C	A 79	1,43	158,00	340,00	26,50	Cable Insulation, weather resistant (SR 720 h)
Polivisol 1775 INT	75°C	D 42	1,39	200,00	310,00	27,50	Used for telephone drop wire, general puposes cable weather resistant (SR 720 h)
Polivisol-1777-D	60-90 °C	A 79	1,29	200,00	380,00	29,00	Service drop wire cable, weather resistant (SR 729 h), flame resistant, RoHS
Polivisol-1800	80 °C		1,35	200,00	360,00	26,00	Automotive insulation cable AV, AVS
Polivisol-1801	80 °C	A 90	1,38	183,00	315,00		Automotive insulation cable, low voltage, AV, AVS, weather resistant
Polivisol-1802	80 °C	D 48	1,35	228,00	360,00	26,00	Automotive cable insulation, T. W2, CAVS, AVSS
Polivisol-1810 LS	75 °C	D 57	1,61	162,00	200,00	48,00	Plenum cable insulation and jacket, RoHS
Polivisol 1880 U	90°C	D 45	1,42	210,00	330,00	33,00	Riser insulation and Jacket cable
Polivisol 1883 U	90°C	A 90	1,43	180,00	300,00	33,00	QMTT2 Jacket for UL 62, Tray Cable (UL 1685), UL compliance
Polivisol 1901 AF	105°C	A 78.40	1,38	170,00	370,00	28,50	Cable insulation, flame resistant
Polivisol 1903 INT	105°C	A 78	1,38	160,00	360,00	29,00	Cable insulation, flame and weather resistantble insulation, flame resistant
Polivisol-1912	105°C	D 53	1,33	220,00	290,00	29,50	Automotive insulation cable, low voltage, LCIVUS, ISO 6722-1, class B, RoHS
Polivisol 1933 LS	90°C-105°C	D 42	1,46	170,00	290,00	32,00	Cable insulation, low smoke (LS), NMX-J-010 THW-LS, THHW-LS
Polivisol 1935 INT LS	90°C-105°C	D 39	1,44	160,00	300,00	32,00	Cable insulation, low smoke (LS), weather resistant (SR 720 h), NMX-J-010, THW-LS, THHW-LS, RoHS
Polivisol 1938 LS	90°C-105°C	D 45	1,49	170,00	270,00	34,00	Cable insulation, THW-LS, THHW-LS and control cables, Low smoke (LS), NMX-J-010-ANCE
Polivisol 1943 AF	105°C	D 42	1,39	190,00	340,00	31,50	Cable insulation and jacket, THHN
Polivisol 1996 U	105°C	A 91	1,33	200,00	370,00	32,50	Cable insulation, QMTT2 UL, TW, THW, THW-2, THHN, THWN, THWN-2, VW1, Oil resistant (Oil I, Oil II)

Materials and Brand Names

Our global presence allows us to bring in all these robust material portfolio, giving options to engineers as you build cables to provide data, energy, power, control, signals and other functions while adhering to strict fire performance standards. We encourage you to collaborate with our technical sales team to find the best product for your application. Choose from proven formulations or ask us to modify a material to your specifications.



*Material selection and the ability to pass fire testing is dependent on the cable design.

**Various products are recognized under this Underwriters Laboratories (UL) category

Brand	Manufacturing site	Type	Typical applications
SMOKEGUARD	USA, UK	PVC	Plenum cables
GW series **POLIVISOL** **SYLVIN**	USA, UK, COLOMBIA	PVC	Flame retardant PVC compounds for jacket, insulation and molding applications
MEGOLON	USA, UK	PO Low smoke, halogen-free	Low smoke and halogen free compounds are formulated with properties required for a variety of cables including communications,power, energy,control, industrial automation,hybrid and specialty cables
GARAFLEX	USA, UK	TPE	Cables for rugged applications, such as flexible cordos, tray, welding cable, appliance, coilcord, pump cable, etc
GCPE series	USA, UK	CPE	Chlorinated polyethylene compound based materials offers robust properties that can handle charging weather conditions and mantain data integrity while in constant motion
GARATHANE	USA, UK	TPU	Urethan alloy, flame retardant compound used when abrasion resistance and toughness are key requirements, especialy in very rugged outdoor applications

New Wire and Cable Developments

Visit our website to learn more
Follow us on LinkedIn to receive notifications about new developments

Resilient ethernet jacket compound for Industrial Agriculture Equipment

Outdoor farming equipment, using our GCPE compound (CPE-based) for cables needing to survive extreme temperature changes, direct sunlight, hot oil and other conditions while operating optimally.

Sheathing compounds for thin-wall applications

SMOKEGUARD® –for plenum spaces
MEGOLON® – low smoke, halogen-free

New formulations designed to pass critical fire-performance testing while bending, twisting and flexing to accommodate tight spaces.

MEGOLON for data cables formulated to achieve CPR cable test classification B2ca

Halogen-free sheathing compounds designed for use in CAT 6/6A data cables formulated to achieve CPR cable test classification B2ca without negatively impacting the expected signal capabilities of the cable.

Gearing up for the Electric Vehicle revolution

GARAFLEX® TPE compounds are an exceptional alternative to thermoset rubber for charging cables. GARAFLEX withstands punishing weather conditions while performing to UL's safety standards and maintaining toughness and flexibility.

Since the 1960s, Alphagary has earned its reputation for providing innovative, functional and durable solutions to a broad marketplace, often custom formulating a material to meet end-user and market-**specific requirements. We work with an extensive range of** polymers, giving our global customer base a variety of features to choose from as they create products that we rely upon for safety, health and comfort in our everyday lives.

We are passionate about safety, dedicated to quality, and committed to harnessing the power of material science and innovation to serve customer needs, address world challenges and provide sustainable solutions.

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GENERAL PURPOSE | SPECIALTY PLASTICIZERS | PHTHALATE - FREE

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