

Dekoron[®]
Wire & Cable LLC

*INDUSTRIAL
CABLE
SOLUTIONS*



CABLE SOLUTIONS

FOR THE WATER TREATMENT INDUSTRY



A Marmon Wire & Cable/Berkshire Hathaway Company

Dekoron Wire & Cable is one of the most reputable industrial cable manufacturers in the world. Manufactured in the United States of America with rigorous attention to detail and quality standards, Dekoron's products are specified by many industry leaders for some of the most challenging projects. As part of the Marmom Group and Berkshire Hathaway, Dekoron has the financial backing, technical support, and resource sharing of more than a dozen other wire and cable companies, giving Dekoron an advantage when dealing with even the most complex requirements. Dekoron's core strengths include the ability to design cables to meet the stringent requirements of our customers, fast delivery to meet on-site needs, and the capability to meet various regulatory standards.

INSTRUMENTATION

Instrumentation cables monitor process parameters such as pressure, flow rate, and temperature by transmitting high-quality, low voltage signals to the instrumentation and process control room. These cables are typically multiple twisted-pair configurations in 16 or 18 AWG sizes, with each pair gathering one set of data. Shielding, a Dekoron innovation, prevents noise and interference and helps to maintain signal quality.

CONTROL

Control cables carry signals to change process parameters from the control room to the remote equipment. Control cables are typically comprised of 14 AWG and larger conductors, sometimes with additional grounding conductors and shielding.

CIRCUIT INTEGRITY

Circuit Integrity cables are meant to perform in the event of a fire emergency. These specialty cables are typically installed in critical circuits, allowing for extended control and monitoring times, even in an emergency situation.

DIGITAL DATA

Digital Data cables, such as Fieldbus and Category cables, are serial, two-way, digital communication cables specifically designed for process monitoring. Communication is provided via twisted-pairs of conductors with specific electrical characteristics and construction features depending upon the certification.

THERMOCOUPLE EXTENSION

Thermocouple Extension cables allow for the remote monitoring of thermocouples from a central location. These cables are available in several common thermocouple types.

COMPOSITE CABLES

Composite cables combine the above types into one convenient package, providing for an all-in-one solution. These cables are especially helpful when space or ease of installation is a concern.

Dekoron Wire & Cable's construction capabilities are highlighted below, with an emphasis given to our more common constructions and offerings. Dekoron prides ourselves on our ability to produce custom and unique cables to suit our customer's needs. If your project requires a specialized cable construction, contact us today to learn more about our specialty cable options.

CONDUCTORS

Bare, tinned, or nickel-plated annealed copper and most thermocouple alloys, in solid, 7-strand, or 19-strand configurations from 20 AWG to 8 AWG are common in Dekoron's products. Additional sizes, metric conductors, and alternative stranding options are available upon request.

INSULATIONS

Dekoron offers both thermoset and thermoplastic insulation compounds including PVC, PVC/Nylon, XLPE, HDPE, and Silicone. Specialty compounds are available upon request.

JACKETS

Jackets, sometimes known as sheaths, are provided in similar compounds as the insulation. These compounds include PVC, CPE, TPN (LSZH), HDPE, Nylon, and Polyurethane, some of which are available in low-temperature capable versions. Specialty compounds may also be available upon request.

CONFIGURATIONS

Dekoron's typical cable constructions feature single and multiple twisted pairs and triads, as well as multi-conductor configurations. These cables are available with individual, overall, and unshielded options. Special constructions, like twisted quads and composite cable constructions are also available.

SHIELDING

Dekoron, the innovator of EMI shielding, provides a variety of options in shielding to prevent noise and interference and helps to maintain signal quality. Typical shields are an aluminum tape with polyester backing. Drain wires are combined with the shield and are in contact with the conductive side of the tape, allowing for easy termination and grounding. Additional shielding materials, such as copper, are also available. Braided shields are available by special request.



APPROVALS & RATING

Dekoron manufactures cables to various construction standards and voltage ratings. Dekoron offers products that can comply with domestic and international standards, as well as various material and cable test standards.

DESIGN STANDARDS

Most Dekoron products are manufactured to Underwriter's Laboratories (UL) standards such as UL 13 (PLTC), UL 2250 (ITC), UL 1277 (TC), UL 1569 (MC), and UL 2225 (-HL). Other common standards used for Dekoron products include ICEA S-73-532, BS 5308, BS EN 50288-7, IEC 60502, and AS/NZS 5000.

CONDUCTORS

Dekoron's conductors are certified to ASTM B3, B33, & B8, when applicable. Compliance with IEC 60228 and AS/NZS 1125 is also available.

TEMPERATURE RATINGS

Dekoron offers most products with temperature ratings from -50°C to 105°C, depending upon the cable's construction.

FLAME RETARDANCY

Most of Dekoron's products have been certified to meet one or more of the following test standards: UL 1685, IEEE 1202, VW-1, FT4, and/or IEC 60332.

FIRE RESISTANCE

Circuit Integrity Cables are available in several configurations which comply with IEC 60331. Additional Fire Resistance compliance may be available upon special request.

WATER, OIL, & CHEMICAL RESISTANCE

Dekoron's products meet the standard UL requirements for water, oil, and chemical resistance. Resistance to a specific material varies by compound and construction. Compliance to additional test standards may also be available.

SUNLIGHT (ULTRAVIOLET) RESISTANCE

Dekoron's products comply with the UL requirements for ultraviolet exposure and are marked as "Sunlight Resistant." Compliance to additional test standards may also be available.

IN-GROUND USE

Most of Dekoron's products are suitable for in-ground use. Applicable UL products are marked as "Direct Burial" cables.

SPECIALTY RATINGS

ER (EXPOSED RUN)

These cables provide additional impact and crush resistance, allowing the cable to be run outside of a cable tray or conduit. ER ratings are available for many constructions.

HL (HAZARDOUS LOCATIONS)

Dekoron offers many cables which are suitable for use in Class I, Division 1 (Class I, Zone 0) hazardous locations. These cables meet very stringent construction and performance standards, ensuring safe operation in the most dangerous environments.

FIELD BUS

Fieldbus cables can be certified to meet FieldComm FF-844 H1 and/or IEC 61158 standards.

ARMOR

Dekoron offers several armor options to provide additional protection for various applications. These armors have various benefits, and are ideally suited for various applications.

DEKABON™

Dekoron's innovative Dekabon™ chemical and moisture barrier provides a gas and liquid-tight metallic seal around a cable, making it ideal for use in-ground and near gasses and liquids.

DEKAFLEX®

Dekoron's latest innovation, DekaFlex®, is a continuously-corrugated, welded stainless steel armor. In addition to its hermetic seal, it offers superior strength, crush and impact resistance, fatigue resistance, corrosion resistance, and incredible flexibility. DekaFlex® is the new standard in armored cables, offering a truly superior option.

GARDEX®

This continuously-corrugated, welded aluminum armor is the most common method used to provide additional protection to cables used in hazardous locations. It offers great strength and a hermetic seal, eliminating the need for conduit.

SERVED WIRE ARMOR (SWA)

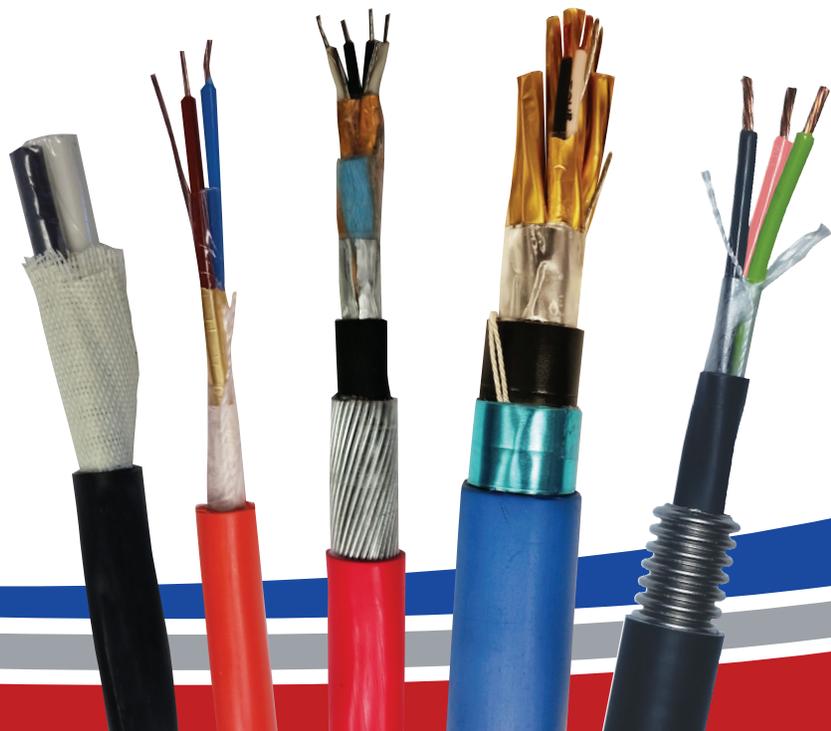
Consisting of numerous strands of galvanized steel wire which are wrapped (served) around the cable, SWA provides a great, low-cost method to greatly increase the cable's cut-through resistance without sacrificing flexibility.

INTERLOCKED ARMOR (ILA)

Available in both galvanized steel and aluminum, ILA offers cut-through resistance and also provides additional mechanical protection without sacrificing flexibility.

DUAL ARMOR

When multiple layers of protection are required, Dekoron can help. Most armor types, such as SWA and Dekabon™, can be combined to provide even greater protection, even in the most demanding situations.



DOCUMENTATION & PACKAGING

If requested prior to ordering, Dekoron can provide Certificates & Test Reports (Certificates of Conformance) for every item on an order shipment.

Custom reel tags can be printed to meet customer requirements if they are requested prior to placing an order.

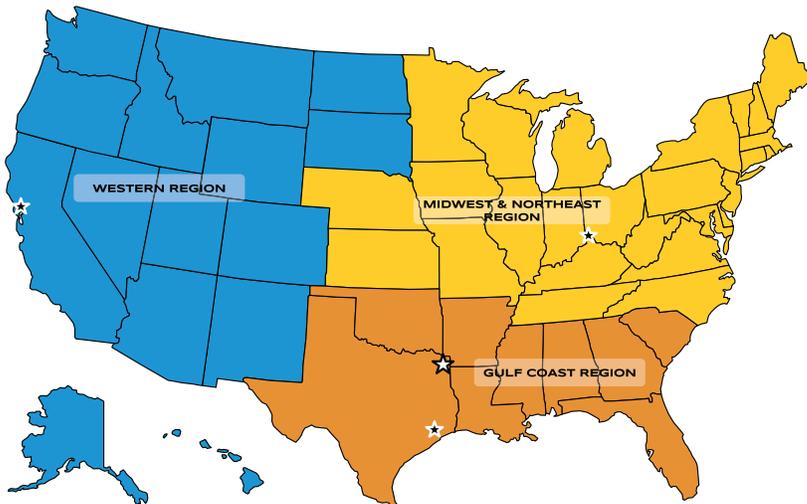
Unless otherwise specified, cables are delivered on wooden reels from 16 up to 96 inches in diameter. On most reels, there is an option to add lagging (wooden planks nailed to the reels flanges) to prevent damage to the cable while in transit. Dekoron's wooden reels are heat-treated and comply with international phytosanitary requirements.

Cable ends – known as “pig tails” – are left exposed on the outside of the reel to allow for final testing. They are sealed with heat-shrink caps during shipment.

CHEMICAL	JACKET MATERIAL					
	CPE	HDPE	LDPE	TPN	TPU	PVC
Activated Carbon	A	A	A	A	A	A
Alum	A	—	A	B	B	A
Ammonia	—	A	A	A	C	B
Bromine	C	C	B	C	C	C
Calcium Hydroxide	A	A	A	A	C	A
Chlorine	—	A	B	C	C	C
Ferric (Iron) Chloride	A	A	A	A	—	A
Ferric (Iron) Sulfate	A	—	A	A	A	A
Hydrochloric Acid	A	A	A	B	C	A
Hydrogen Peroxide	A	A	A	C	A	A
Ozone	A	B	B	A	B	A
Phosphorus	—	—	B	B	—	B
Potassium Permanganate	—	A	A	B	C	A
Sodium Chloride	A	A	A	A	A	B
Sodium Hydroxide	A	B	A	A	C	A
Sodium Hydrosulfide	—	—	—	A	B	—
Sodium Hypochlorite	A	A	B	B	C	A
Sulfur Dioxide	—	—	B	B	C	A
Sulfuric Acid	A	A	A	A	C	B

A	Resistant	Chemical should have no major effect on material.
B	Somewhat Resistant	Chemical may have minor effect on material.
C	Not Resistant	Chemical likely to have an effect on material.
—	Not Rated	No data available.

Actual performance may vary based on compound, environmental conditions, exposure, concentration, and/or other variables. Testing is recommended.



REGIONAL SALES CONTACTS

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Dekorón® INDUSTRIAL
Wire & Cable LLC CABLE
SOLUTIONS

