

To enhance your building wire Jacketing with Ultramid®



Ultramid® for wire jacketing

BASF's Ultramid® polyamide 6 (PA6) is the top product for wire and cable jacketing. As the global leader in polyamide for building wire jacketing, BASF knows what it takes to succeed in this industry.



Range of use

Wire and cable incorporating Ultramid® as the jacket are extensively applied in:

- Building industry for internal wiring of residential as well as commercial buildings
- Electric appliances such as lighting fixtures, portable hand tools, etc.
- Automobile and ship building industry for internal wiring

As proven by practical applications in North and South America, the Middle East, as well as the Philippines, Ultramid® is highly regarded in wire jacket (flexible armoring) manufacturing. Ultramid® is also recognized by Underwriters Laboratories (UL) for use in wire and cable jackets.

PVC insulated PA jacketed wires are certified via the standards UL 83 'Thermoplastic-Insulated Wires and Cables' and UL 1581 'Reference Standard for Electrical Wires, Cables and Flexible Cords'. Furthermore, PVC insulated PA jacketed wires pass the requirements of the standards IEC 60227 'PVC insulated cables of rated voltages up to and including 450/750 V' and IEC 60332 'Tests on electric and optical fiber cables under fire conditions'.



Why Ultramid® for wire jacketing?

In many countries, PVC insulated wires have been used for the internal wiring of residential and commercial buildings and other applications for many years. By using Ultramid® as the polyamide jacketing material, the wires will possess the following advantages:



Reduction of insulation thickness

As the PA jacket replaces a part of the PVC insulation, two key advantages result: First, the overall diameter of the wire can be reduced which enables the installation of a larger number of wires in a conduit of the same inside diameter. Second, the diameter of the copper conductor can be increased leading to a higher ampacity of a wire of identical diameter.



Lower total cost and lower weight

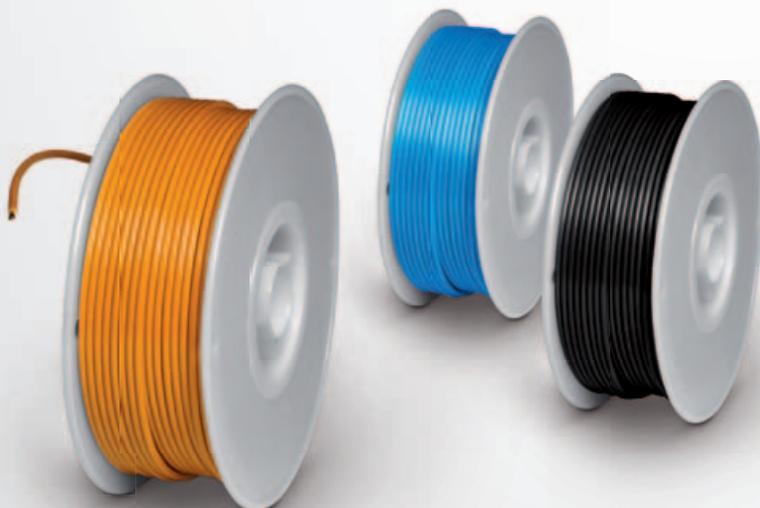
Reducing the amount of PVC and replacing with Ultramid® leads to a reduction of overall material cost and a reduction of overall weight.

Excellent technical performance

- Excellent heat stability: thermal rating up to 221 °F / 105 °C
- High mechanical strength
- High impact strength
- High bending strength (i.e., RT Flex and Cold Bend)
- High gloss jacket
- Resistance to thermal deformation
- Excellent abrasion resistance
- Chemical resistance to oil and grease
- Flexible jacketing

Easier and safer installation

Due to polyamide possessing improved self-lubrication properties compared to PVC, it is easier to pass wires through conduits. This improves the operational efficiency, reduces the possibility of wire damage, and thus increases safety.



Comparison between ordinary PVC wire and PVC/PA jacketed wire

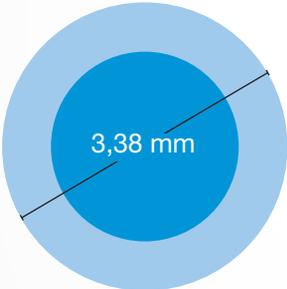
Ordinary PVC wire



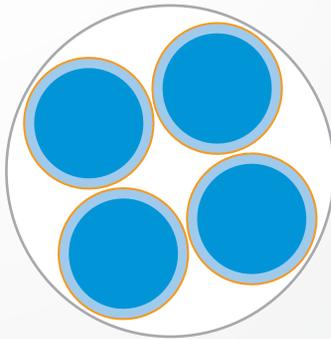
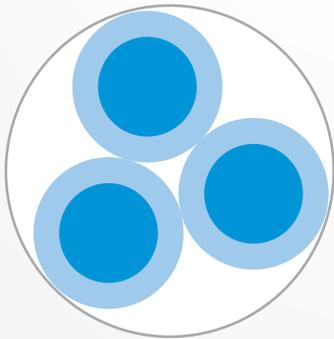
Wire jacketed with PVC/PA



Given the same overall diameter, the size of the copper conductor can be increased.



Given the size of the copper conductor, the overall diameter can be decreased.



Larger number of wires inside the same conduit.

About BASF

BASF is the world's leading chemical company: The Chemical Company. Its portfolio ranges from chemicals, plastics, performance products and crop protection products to oil and gas. We combine economic success, social responsibility and environmental protection. Through science and innovation we enable our customers in almost all industries to meet the current and future needs of society.

Our products and system solutions contribute to conserving resources, ensuring healthy food and nutrition and helping to improve the quality of life. We have summed up this contribution in our corporate purpose: We create chemistry for a sustainable future. Further information on BASF is available on the Internet at www.basf.com or in the Social Media Newsroom at newsroom.basf.com.



World leader in polyamide

BASF is the leading producer of polyamide and its intermediates in the world. Our products are sold in more than 70 countries, into market segments such as packaging, monofilaments, engineering plastics, wire and cable jacketing through to textile, technical and carpet fibers. Customers value BASF as a reliable supplier of high-quality innovative products, with a high level of technical expertise and operational excellence.

BASF – a partner you can rely on

With over 60 years of experience in polyamide, BASF is truly a partner you can rely on. We work closely with our customers to identify their needs, and we constantly strive to strengthen their competitive advantage.

We combine our know-how, products and services in one highly effective global network. We never stop asking what we can do to involve our partners in the best possible way. That is how we help our customers to be more successful.

When it comes to PA jacketing of wires and cables, we possess a high degree of technical expertise and can offer competent technical support. Ultramid® provides excellent properties and consistent product performance.

For more information about Ultramid®, please contact us.

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