

Heat shrink films

VonRoll

IRRATHENE® 201 and 202

- ▶ High dielectric strength
- ▶ Low dielectric constant
- ▶ Low dissipation factor
- ▶ Excellent chemical and moisture resistance
- ▶ Sealable

General description

IRRATHENE® 201 (white) and 202 (black) irradiated polyethylene tapes are designed for insulation of electrical equipment and apparatus. These general purpose materials have high dielectric constant, and excellent chemical and moisture resistance. They are non-melting and are resistant to environmental stress cracking. IRRATHENE® tapes contain an anti-oxidant which will permit continuous operation at Class A temperatures with added overload protection up to 390°F (200°) for short intervals.

Application

The combination of excellent electrical, mechanical, and aging properties of IRRATHENE® tapes makes them well suited for bus-bar insulation, power-cable insulation, communication cable insulation, and as transformer ground insulation.

Standards

The properties shown above are typical values only, and should not be used as a basis for preparing specifications. Contact our Customer Service department, (518) 344-7100 for assistance in preparation of specifications for your specific system application.

Processing

IRRATHENE® 201 and 202 tapes may be applied by either hand or machine taping. In addition, sealed impervious systems may be obtained by heating wrapped structures to 212 - 230°F (100 - 110°C) to shrink the IRRATHENE® tape around the object, followed by heating to 275 - 302°F (135 - 150°C) to seal IRRATHENE® 201 tape or a temperature of 320 - 338°F (160 - 170°C) to seal IRRATHENE® 202 tape.

Health and safety

Material Safety Data Sheets defining the known hazards and describing safety precautions appropriate for this product are available upon request from Von Roll USA, Inc., 200 Von Roll Drive, Schenectady, New York 12306 (518) 344-7100. Similar information sheets for solvents and other chemicals used with this product may be obtained from the appropriate supplier and used accordingly.

Shelf life

IRRATHENE® 201 and 202 tapes have exhibited no shelf like limitations for a period of one year when stored under normal conditions; 77°F (25°C) and 50% relative humidity. IRRATHENE® 201 and 202 should be protected from sunlight.

Order Data

This product is available from Von Roll USA, Inc. or from authorized Von Roll distributors. For the name of your distributor or for more information on this product, contact our Customer Service department, (518) 344-7100.

Packaging

Irrathene® 201 and 202 tapes are available as slit tape, ½ inch to 3 inches (12.7 - 76.2 mm) in width. Standard width tolerance on slit tape is + 0.032 inch.

Performance Characteristics

Typical Electrical Properties

	25°C	100°C
Dielelectric Strength, ASTM D149		
Short Time; volts/mil (volts/mm)	500 (19,700)	360 (14,200)
Dissipation Factor, ASTM D150, 60 Hz; %	0.05	0.05
Dielelectric Constant, ASTM D149; 60 Hz	2.3	2.1

Typical Mechanical Properties

	0.005 mils	0.010 mils
Tensile Strength, ASTM D828, 73°F (23°C)		
lb/in width (kg/cm)	9.5 (1.69)	18.0 (3.20)
Tensile Strength at break ASTM D828, 73°F (23°C)		
lb/in width (kg/cm)	2200 (31,460)	2150 (30,745)
Elongation at break, ASTM D-882; %		
at 73°F (23 °C)	400	475
Shrinkage, 300°F (150°C), lengthwise; %	15	15
Coverage; yd ² /lb (m ² /kg)	4.5 (8.3)	2.3 (4.2)
Stiffness, Gurley, 73°F (23°C); mg	20	175

The product properties set forth in this data sheet are based on the results of testing of typical material produced by the affiliated companies of Von Roll Holding Ltd. (underneath referred as Von Roll). Some variation in product properties is typical. Comments or suggestions relating to any subject other than product properties are offered only to call the end-user's or other person's attention to considerations which may be relevant in the independent determination of the use and/or manner of use of product. Von Roll does not claim or warrant that the use of its product will have the results described in this data sheet or that the information provided is complete, accurate or useful. The user should test the product to determine its properties and its suitability for the intended use. Von Roll expressly disclaims any liability for any damage, harm, injury, cost or expense to any person resulting directly or indirectly from that person's reliance on any information contained in this data sheet. Nothing contained in this data sheet constitutes representation or warranty as to any matter whatsoever. Von Roll makes no warranties whatsoever in this data sheet, expressed or implied, including any implied warranty or fitness for a particular use or purpose. Von Roll shall in no event be liable for incidental, exemplary, punitive or consequential damages.