

## **US Samica 64000 Series: ISOMICA TAPES & WRAPPERS**

### **DESCRIPTION:**

Isomica 64000 series tapes and wrappers are made from Samica paper saturated with 100% solids fully cured flexible polyester resin. The Samica paper is laminated to various glass cloth, polyester films and/or non-woven mats to provide mechanical handling properties.

### **FEATURES:**

- Fully cured flexible polyester resin system.
- Extremely comfortable.
- Excellent room temperature storage.
- Compatibility with a wide range of varnishes and resins.

### **SUGGESTED USES:**

Isomica 64000 series products are characterized by excellent flexibility and taping qualities. Because the polyester resin system is fully cured there is no need for refrigerated storage.

### **APPLICATION:**

#### **Motor-Generator Form Wound Coils**

Isomica 64000 series tapes and wrappers are suggested for use in dry taped form wound coil applications where they are overtaped with glass and dipped and baked. Instead of dipping and baking a sealable armor tape may be used. Isomica 64000 series tapes have been used for ground wall insulation in VPI systems for several years. These tapes are suitable for taping leads and connections. They are suggested for taping the coil extension on resin rich and vacuum pressure impregnated coils where a flexible nose is needed for ease of winding after cure.

#### **Transformer Application**

Isomica 64000 series materials are used as layers, turn, barrier and ground insulation in dry type transformers operating at Class 155 conditions.

### **SHELF LIFE:**

Unlimited under normal storage conditions.

### **AVAILABLE FORMS:**

Isomica 64000 series Type I are available in 38" wide logs on 3" I.D. cores, as sheets or as slit tapes on 1-1/2" cores. Type II is normally supplied as 38" rolls.

### **COMMENTS:**

Isomica 64000 series type products with polyester film on both surfaces give minimum layer to layer friction during taping applications. The glass reinforcement allows for high mechanical force to be applied during application. These products work equally well on hand or machine taping.

The low tensile strength of Type II generally makes this product unsuitable for high speed machine taping. 64300 is most frequently used as slot cell wrapper on form wound coils.

**CONSTRUCTION:**

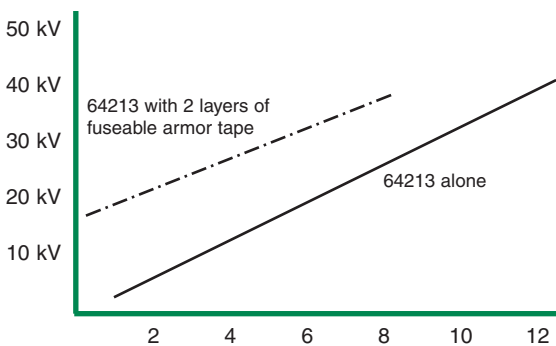
	<b>TYPE I</b> <i>(Glass Reinforced, Polyester Film Both Surfaces)</i>			<b>TYPE II</b> <i>(Film-Samica Paper)</i>
	<b>64213</b>	<b>64217</b>	<b>64206</b>	<b>64300</b>
<b>Polyester Film</b>	0.00025"	0.00025"	0.00025"	0.0005"
<b>Samica Paper</b> (thickness)	0.002"	0.0025"	0.0035"	0.005"
<b>Samica Paper</b> (weight)	83 g/m <sup>2</sup>	107 g/m <sup>2</sup>	131 g/m <sup>2</sup>	187 g/m <sup>2</sup>
<b>Glass</b> (thickness) (scrim)	0.0021"	0.0021"	0.0021"	
<b>Product Thickness</b> (avg.) (ASTM D-374, Method D)	0.0060"	0.0065"	0.0075"	0.0080"
<b>Resin Content</b>	22%	22%	22%	18%
<b>Electric Strength</b> (short time, 500 V/sec ASTM D-149 1/4" electrode)	900 V/mil	900 V/mil	800 V/mil	1,300 V/mil
<b>Tensile Strength</b>	70 lb/in	60 lb/in	70 lb/in	20 lb/in
<b>Thermal Class</b>	155°C	155°C	155°C	155°C

**TYPICAL APPLICATIONS:**

- 64213 and 64217 may be used as layer and turn insulation for dry type transformers. It is also used as lead, turn and ground wall insulation in form wound coils. This tape is suggested for use in connection with a sealable armor tape as a ground wall on nonvarnished sealed coils. It is also suggested for taping of flexible nose sections on coils which use Samicapor VPI tapes or Samicatherm resin rich tapes in the ground wall. These tapes have greater conformability due to the scrim glass for taping.
- 64206 can be used as 64213 for higher mica content. 64206 is suggested as a cell wrapper for motor coils where 64213 is used for taping the end leads. 64217 is used much like 64213 where the slight increase in mica content is desirable with a minimum increase in thickness.
- 64300 is used as layer, turn and ground insulation for dry type transformers. It is also suggested as slot cell wrapper for form wound coils rated up to 4.2 kV with dip and bake techniques.
- Isomica tapes are sometimes used on low voltage coils (2100 volt and lower) with only an over tape of sealable armor or a dip and bake varnish. The graphics below show the short time electric breakdown strength of Isomica 64213 on taped bars without impregnating.

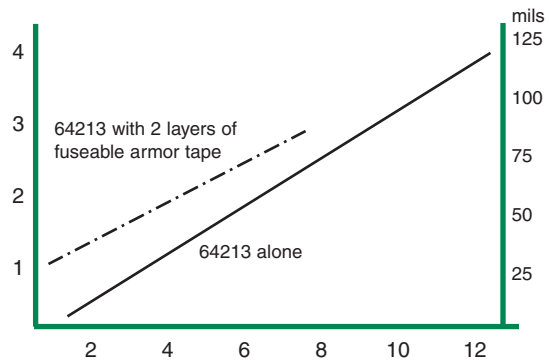
**ISOMICA 64213**

Dielectric Breakdown\* Vs. Number of Layers of 64213



**ISOMICA 64213**

Wall Thickness of Insulation Vs. Number of Layers of 64213



\* Short time method 500 v/sec rate of rise

**LIMITED WARRANTY/DISCLAIMER:** Isovolta/US Samica ("Seller") products are warranted to be free from defects in material and workmanship for the warranty period described below. Seller disclaims any other warranty, express or implied, including any warranty of merchantability, fitness for a particular purpose, or otherwise except as expressly set forth herein and there are no warranties which extend beyond the face hereof. **Limitation of Remedy:** Seller's liability for nonconformance of or defects in any goods sold or delivered to buyer is limited solely and exclusively to the replacement of the goods or a refund of the purchase price of such goods, at the Seller's option. **Limitation of Liability:** Seller shall have no liability for special, indirect or consequential damages, nor shall Seller's liability exceed the purchase price paid for goods purchased by the buyer regardless of whether the basis for any claim is in contract, tort, warranty, negligence, or any other theory, claim, or cause of action. **Warranty Period:** Seller's liability shall be limited exclusively to those goods discovered by the buyer to be nonconforming or defective within 30 days of purchase of such goods and of which written notice is given to seller within 45 days of discovery. **Selection of Product; Advice:** Seller provides technical specifications of its products and those specifications are not adapted or customized to its customers' requirements. Seller will consult with customers about the factors involved in making selections of the proper products for the customers' needs, and assist its customers with the selection of those products best suited to such needs. Such consultation and advice is necessarily limited by Seller's incomplete knowledge of its customers' products and needs and is therefore given without warranty or guaranty of any results a buyer may seek to achieve or of the suitability of Seller's products for buyer's circumstances. The risk of product selection shall be borne by buyer.