



# Sumilon Polyester Limited

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## TECHNICAL SPECIFICATION SHEET

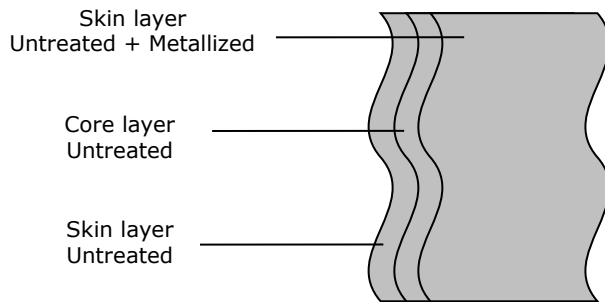
### SM - 600

SUPET<sup>®</sup>

(BIAXIALLY ORIENTED POLYESTER FILMS)

#### Copper Metallized Film – Ultra Pure Copper Metallized on One Side and Other Side Plain

SM-600 grade is a bi-axially oriented polyester film with one side plain and other side medium density copper metallization by thermally evaporation method in inductively heated isostatic graphite crucibles. Copper metallized films are widely used in electronic medium applications as copper has low resistance and high melting point.



#### Main Features:

- ❖ Good metal bond strength.
- ❖ Good lamination bond strength.
- ❖ Low Resistance makes it best suitable for high performance IC & PCBs applications.
- ❖ High melting point than Aluminium leads to greater EM-Resistance.

#### Applications:

- ❖ Electronic applications.

| PROPERTIES                          | TEST METHOD           | UNIT               | TECHNICAL DATA SM-600 |      |      |      |      |      |      |
|-------------------------------------|-----------------------|--------------------|-----------------------|------|------|------|------|------|------|
| <b>PHYSICAL</b>                     |                       |                    |                       |      |      |      |      |      |      |
| Thickness                           | ASTM D-374            | Micron             | 10                    | 12   | 15   | 23   | 36   | 50   |      |
| Yield                               | STM                   | m <sup>2</sup> /kg | 71.4                  | 59.5 | 47.6 | 31   | 19.8 | 14   |      |
| <b>OPTICAL</b>                      |                       |                    |                       |      |      |      |      |      |      |
| Optical Density*                    | Optel make Instrument | OD                 | 2.2 ± 10 %            |      |      |      |      |      |      |
| <b>MECHANICAL</b>                   |                       |                    |                       |      |      |      |      |      |      |
| Tensile strength (Min)              | MD                    | ASTM D-882         | Kg/cm <sup>2</sup>    | 2000 | 2000 | 2000 | 2000 | 1900 | 1900 |
|                                     | TD                    | ASTM D-882         | Kg/cm <sup>2</sup>    | 1900 | 1900 | 1900 | 1900 | 1800 | 1800 |
| Elongation (Min)                    | MD                    | ASTM D-882         | %                     | 90   | 90   | 90   | 90   | 100  | 100  |
|                                     | TD                    | ASTM D-882         | %                     | 90   | 90   | 90   | 90   | 90   | 90   |
| <b>THERMAL</b>                      |                       |                    |                       |      |      |      |      |      |      |
| Shrinkage (MAX)<br>(150°C / 30 min) | MD                    | ASTM D-1204        | %                     | 2.80 | 2.80 | 2.80 | 2.80 | 2.80 | 2.80 |
|                                     | TD                    | ASTM D-1204        | %                     | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |

$$OD = \frac{\log 100}{\text{Actual Transmission}} \quad (\text{Possible Range : 1.0 to 2.2 OD } \pm 10\% \text{ along width \& length})$$

**Note : Thickness & OD other than mentioned above can be given on customer requirements.**

SPTM: SUMILON POLYESTER TEST METHOD, MD: MACHINE DIRECTION, TD: TRANSVERSE DIRECTION

#### DISCLAIMER

The values given in this technical datasheet are typical performance data and are believed to be accurate. These are given in good faith but it is for the customer to satisfy of the suitability for its own particular purpose. Sumilon Polyester Limited suggests the customer to confirm these values and product compatibility prior to their use and the company offers neither guarantee nor accepts any responsibility for the fitness of the product for any particular use.