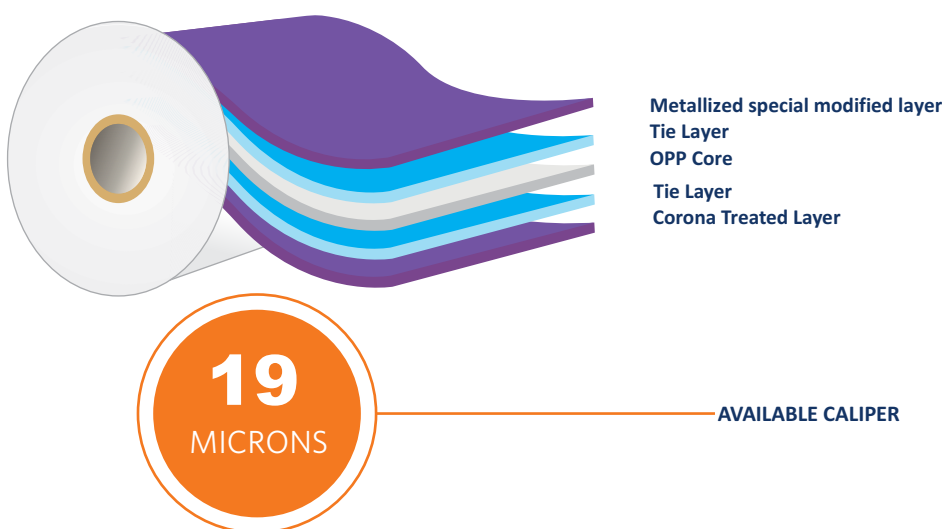


PROVISIONAL

M19SLI - CRF

BOPP FILMS

METALLISED NON HEAT SEALABLE BOPP FILM WITH ULTRA HIGH BARRIER GRADE FOR SANDWICH LAMINATION



DESCRIPTION

M19SLI-CRF is both side treated ultra high barrier metallised BOPP film. It's metallised surface is specialized surface having good treatment retention and chemical resistant, Non-metallised side is treated for sandwich adhesive as well as extrusion lamination (triplex structure) as a replacement of Aluminium foil or metallised polyester.

PRODUCT FEATURES

- Outstanding oxygen barrier
- Outstanding Moisture & light barrier
- Good treatment retention & metal adhesion
- Good chemical Resistance
- Extended shelf life for food products
- Easy convertibility on both sides for adhesive as well as extrusion sandwich lamination
- Excellent runnability on HFFS & VFFS machines

APPLICATIONS

Sandwich lamination in triplex structures as a replacement of Aluminium foil/metallised polyester;

- Ketchup and Sauces
- Pouch/Sachet laminates
- Health and beauty care

NOMENCLATURE

- M19SLI-CRF - Metal surface Inside
- M19SLO-CRF - Metal surface Outside

TOPPAN SPECIALITY FILMS

PROVISIONAL

| | PROPERTIES | POSITION | M19SLI-CRF | UNIT | METHOD |
|------------|-----------------------------|--------------|----------------|------------------------|-----------------|
| GENERAL | Nominal Thickness | - | 19 | μ | Internal Method |
| | Density | - | 0.91 | g/cc | Internal Method |
| | Grammage | - | 17.3 | g/m ² | Internal Method |
| | Yield | - | 57.8 | m ² /kg | Internal Method |
| OPTICAL | Optical Density | - | 2.9 | - | Internal Method |
| SURFACE | Metal Adhesion | - | 100 | % | Internal Method |
| MECHANICAL | Tensile Strength (at break) | - MD - TD | 1200 2500 | kg/cm ² | ASTM D 882 |
| | Elongation (at break) | - MD - TD | 190 60 | % | ASTM D 882 |
| | Elastic Modulus | - MD - TD | 17000 28000 | kg/cm ² | ASTM D 882 |
| | | | | | |
| THERMAL | Linear Shrinkage | - MD - TD | 4 2 | % | ASTM D 1204 |
| | | | | | |
| BARRIER | WVTR 38° C 90% RH | - | 0.07 | g/m ² /day | ASTM F 1249 |
| | OXTR 23° C 0% RH | - | 0.07 | cc/m ² /day | ASTM D 3985 |

The figures and above properties refer to typical values which are indicative only. Customers should verify the suitability of the film for its specific end use. Therefore this document will not represent a product specification.

GUIDELINES FOR STORAGE

Temperature should preferably be less than 30°C & humidity 55±5% in storage areas and material should be consumed within three months of receipt. OPP films should be allowed to reach operating room temperature 24 hours before use.

FOOD CONTACT

OPP films complies with the requirements of FDA, EC & REACH regulations. Specific documentation is available on request

SAFETY

Compliance with industrial health and safety standards. OPP films do not present any significant danger to health and safety in the workplace, provided they are used for the intended purpose in accordance with conventional practices and that health & safety regulations are observed. Relevant guidelines can be found in our MSDS (available upon request).

CAUTIONS

- Film characteristics are maintained for six months from the date of invoicing.
- Reels must not be stacked
(Recommended storage conditions: Temperature < 30 deg C & Humidity 55% (Maximum) in original packed condition)