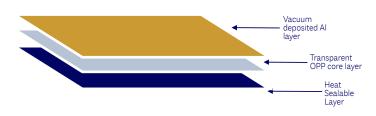


TPPPL-MHS-PL DATA SHEET

www.tempopackaging.com

MHS - PL



Typical Applications (can be used as single web or laminate structure) In lamination lap sealable Bakery products llike biscuits, cookies, crackers Confectionery, chocolate, crisp & snacks Frozen foods, ice cream, pet food Dry Foods, Beverages Powders Box overwrap, gift wrap

Product Description

TPPPL - MHS - PL is one side metallised with high purity aluminium & other side controlled Heat sealable, offers outstanding barrier to gas, moisture, odour, light & can be used in laminates as the inner web & is suitable for HFFS and

VFFS applications.

• High purity aluminium adhesion by vacuum process

Key Features

- Excellent machinability
- One side sealable with high seal strength
- Good optical density
- Moisture, gas, odour barrier
- Good dimensional stability
- Good resistance to oil,
 fate and flow eracking
- fats and flex cracking

TECHNICAL SPECIFICATION

| Properties | Unit | Method | Typical Values (MHS-PL) | | | | | | |
|---|-------------------|---------------------|-------------------------|------|------|------------|--------|------|------|
| Physical Properties | | | | | | | | | |
| Nominal Thickness | μ | TPPPL | 15 | 18 | 20 | 25 | 30 | 35 | 40 |
| Grammage | gm/m ² | TPPPL | 13.7 | 16.4 | 18.2 | 22.8 | 27.3 | 31.9 | 36.4 |
| Density | Gm/cc | TPPPL | | | | 0.905 - | 0.91 0 | | |
| Yield | m²/kg | TPPPL | 73.3 | 61.0 | 54.9 | 44.0 | 36.6 | 31.4 | 27.5 |
| Optical Properties | | | | | | | | | |
| Optical Density (Min) | | TPPPL | | | | 2.2 | | | |
| Surface Properties | | | | | | | | | |
| Wetting Tension (Min) | Dyne/cm | ASTM D 2578 | | | | 40 | | | |
| Dynamic Coefficient Friction (NT/NT) | - | ASTM D 1894 | | | | 0.30 | | | |
| Mechanical Properties | | | | | | | | | |
| Tensile Strength (at Break) (Min) | N/mm ² | ASTM D 882 MD TD | | | | 140 270 | | | |
| Elongation (at Break) (Max) | % | ASTM D 882 MD TD | | | | 180 50 | | | |
| Elastic Modulus (Min) | N/mm ² | ASTM D 882 MD TD | 1700 2800 | | | | | | |
| Thermal Properties | | | | | | | | | |
| Shrinkage@120°C 5 Minutes air (Max) | % | TPPPL MD TD | | | | 4.0 2.0 | | | |
| Heat Seal Range | °C | TPPPL NT/NT | | | | 105-140 | | | |
| Seal Strength @120°C 1 bar, 0.5 sec | N/Inch | TPPPL NT/NT | 5.0 6.5 | | | 6.5 7.0 | | | |
| Barrier Properties | | | | | | | | | |
| WVTR @ 38°C, 90% RH | Gm/m²/24h | ASTM F 1249 | 0.40 | 0.35 | 0.32 | 0.25 | 0.25 | 0.20 | 0.20 |
| OTR @ 23°C, 0% RH | Gm/cc /24h | ASTM D 3985 | 60 | 55 | 50 | 45 | 45 | 40 | 40 |
| MD- Machine Direction, TD- Transverse Direction, NT- Non-Treated, RH- Relative Humidity, TPPPL- Tempo Paper Pulp & Packaging Ltd. | | | | | | | | | |



Corona Treatment Indication

TPPPL – MHS-PL can be supplied either with treatment on the inside surface (TI) Outside Surface (TO). This must be agreed with our sales representative before processing the order.

Roll Size Availability

| Film Type | Standard Length (m) | 2 x Std. Length | 4 x Std. Length | 6 x Std. Length | 8 x Std. Length |
|-----------|---------------------|-----------------|-----------------|-----------------|-----------------|
| MHS-PL 15 | 4250 | 8500 | 17000 | 25500 | 34000 |
| MHS-PL 18 | 3550 | 7100 | 14200 | 21300 | 28400 |
| MHS-PL 20 | 3200 | 6400 | 12800 | 19200 | 25600 |
| MHS-PL 25 | 2550 | 5100 | 10200 | 15300 | 20400 |
| MHS-PL 30 | 2100 | 4200 | 8400 | 12600 | 16800 |
| MHS-PL 35 | 1800 | 3600 | 7200 | 10800 | 14400 |
| MHS-PL 40 | 1600 | 3200 | 6400 | 9600 | 12800 |

Corresponding Roll's Outer Diameter

| Core ID 76 mm | 305 mm | 419 mm | 588 mm | 716 mm | 825 mm |
|----------------|--------|---------------|--------|--------|--------|
| Core ID 152 mm | 337 mm | 444 mm | 605 mm | 730 mm | 838 mm |

*For availability of roll sizes (multiples of standard length) please refer to the Sales Representative

Legal Statement

Contact your Tempo Customer Service Representative /Sales Representative for potential food contact application compliance (e.g. FDA, NAFDAC) & MSDS. This product is not intended for use in medical applications and should not be used in any such applications. The figures and data provided in this datasheet are consistent with the current state of our knowledge and are intended to provide general information about our products and their applications. They do not constitute a guarantee of any specific product attributes or the suitability of products for specific applications.

| For technical enquiries, please contact: Sandeep Kumar, Q.A. Manager | I | sandeep.kumar@tempong.com | I | 07045745029 |
|--|---|---------------------------|---|-------------|
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