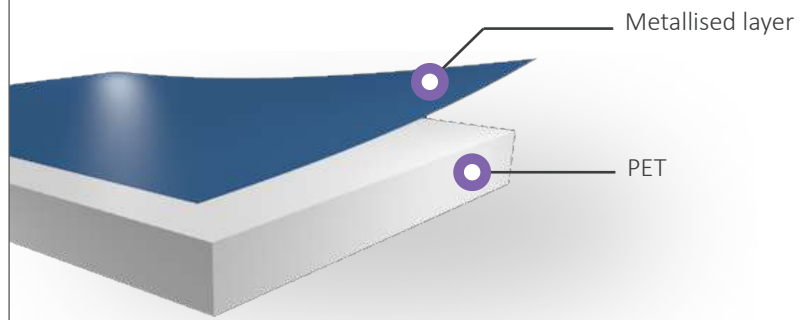


Claryl[®] M M-O

Application

- Flexible packaging requiring barrier properties



METALLISED PET FILM

Benefits

- Good aroma barrier
- Opaque gas barrier film
- High protection against natural and UV light
- High thermal stability and good machinability

Toray Films Europe SAS,
Place d'Arménie,
01700 Saint-Maurice-de-Beynost, FRANCE

To access Toray Films Europe's **certifications list**, please visit
www.torayfilms.eu/en/certifications

Typical Values *(These values do not constitute binding specifications)*

| Properties | Test Method | Unit | 4.5 µm | 6 µm | 8 µm | 12 µm | 19 µm | 23 µm | 36 µm |
|---------------------------------|-----------------|---|--------|------|------|-------|-------|-------|-------|
| YIELD | | | | | | | | | |
| Unit Weight | | g/m ² | 6.3 | 8.4 | 11.2 | 16.8 | 26.6 | 32.2 | 50.4 |
| Area Yield | | m ² /kg | 158.7 | 119 | 89.3 | 59.5 | 37.6 | 31.1 | 19.8 |
| MECHANICAL | | | | | | | | | |
| Tensile Strength MD | ASTM D 882 | daN/mm ² | 31 | 25 | 20 | 16 | 17 | 24 | 19 |
| Tensile Strength TD | | | 22 | 22 | 21 | 21 | 21 | 27 | 23 |
| Elongation at Break MD | ASTM D 882 | % | 75 | 82 | 110 | 120 | 120 | 110 | 120 |
| Elongation at Break TD | | | 98 | 98 | 104 | 80 | 90 | 90 | 90 |
| THERMAL | | | | | | | | | |
| Shrinkage 150°C 30min MD | Internal Method | % | 2.5 | 2.5 | 2.5 | 1.4 | 1.3 | 1.8 | 1.3 |
| Shrinkage 150°C 30min TD | | | 1 | 1 | 1 | 0.3 | 0.2 | 0.3 | 0.3 |
| OPTICAL | | | | | | | | | |
| Optical density | | | 1.8 | 1.8 | 2.0 | 2.1 | 2.1 | 2.1 | 2.1 |
| BARRIER | | | | | | | | | |
| OTR. 50% HR. 23°C | ASTM F1927 | cm ³ /m ² per day | 1.9 | 1.9 | 1.9 | 0.7 | 0.7 | 0.7 | 0.7 |
| MVTR. 90% HR. 38°C | ASTM F1249 | g/m ² per day | 3.8 | 2 | 2 | 1.0 | 1.0 | 1.0 | 1.0 |
| SURFACE | | | | | | | | | |
| Metal adhesion / Heat seal test | Internal Method | N/38mm | 1 | 1 | 1 | 1 | 1 | 1 | 1 |

Regulation

Claryl® M and M-O comply with European applicable requirements for food contact applications. For Toray's certification concerning specific applications with each product, please refer to the 'Declaration of Compliance'.

Presentation of the rolls

Roll packaging: The rolls are suspended on standard paper core with internal diameter of 152.8mm. For all presentation, minimum roll width = 340mm and maximum roll width = 2100mm.

Returnable packaging: Wooden flanges, plastic flanges and pallets are returnable. The metallised side is identified on the labels:



Please contact us for...

- Any other presentation (width, length, core)
- Process for returnable packaging
- Any other information about typical values, measuring conditions, tolerances, deliveries...

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