LOKI DESTRUCTIBLE FILM FOR TAMPER EVIDENT AND AUTHENTICITY LABELS

Loki face material for pressure sensitive labels fragments in to tiny pieces with any attempt to remove once attached to a surface. This provides obvious evidence of tampering and an undamaged label assures consumers of pack integrity and product authenticity.

The high tensile strength of Loki relative to its tear strength enables easy processing whilst retaining destructibility performance. The stiff polymer is formulated to suit automatic application of labels. Loki labels conform well around shapes and corners making it an ideal solution for tamper evident seals for securing carton and bottle closures.

The exceptional clarity of Loki allows the no-label look and versatile graphic design especially when used in conjunction with an optically clear adhesive. A white version is available and Loki can be made in customized colours too (subject to MOQs).

Like all Clarifoil® films, Loki is made from sustainably sourced wood pulp.

**PRODUCTS**
- 50µm Loki Gloss or Matt surface finish
- 50µm Loki White Gloss or Matt
- 50µm Loki Custom Colour Gloss or Matt

**KEY FEATURES**
- High destructibility
- Readily printable (normally without treatment/top coat)
- Easy to process (laminate, slit, print, die-cut, matrix strip and apply)
- Suitable for automatic and manual labelling of products and packs
- High yield compared with filled vinyl films
- Exceptionally low haze
- Gloss or Matt surface finish
- White version available, other colours on request
- No odour
- Bio-based
- Made with sustainably sourced, PEFC certified wood pulp

<table>
<thead>
<tr>
<th>Typical properties</th>
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<tbody>
<tr>
<td>Gauge µm</td>
<td>50</td>
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<tr>
<td>Surface energy (dyn cm⁻¹)</td>
<td>38-42</td>
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<tr>
<td>Transparency (%) ASTM D1744</td>
<td>&gt;90</td>
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<tr>
<td>Haze(%) ASTM D1003 - 90, BS 2782 521A</td>
<td>&lt;2.0</td>
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<tr>
<td>Tensile strength (Nmm⁻²) ASTM D882 - 91</td>
<td>60-70</td>
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<td>Elongation at break (%) ASTM D882</td>
<td>5-15%</td>
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<tr>
<td>Tear propagation (N) ASTM D1938</td>
<td>0.046 ± 0.005</td>
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APPLICATIONS

Security labels with permanent adhesive

Fragmentation of Loki
- provides visual evidence of tampering
- prevents removal and reuse of label

SOLUTIONS

Tamper evident seals
Anti-counterfeit labels
Loki supports:
- Falsified Medicines Directive 2001/83/EC as amended
- US Drug Quality and Security Act 2013
- ISO 12931:2012: Performance criteria for authentication solutions used to combat counterfeiting of material goods

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