Synthec
The banknote paper for extended circulation
The substrate that meets the toughest demands

By adding SyntheC to its existing products LongLife and StrongLife, Louisenthal has introduced a new banknote substrate especially featuring optimized mechanical stability and resistance to tearing at the edges. SyntheC can stand up to rough handling while meeting strict security requirements. SyntheC is a particularly cost-effective solution for low-denomination banknotes.

It combines the proven features of LongLife – extreme resistance to moisture and soiling – with significantly improved durability, enabling banknotes to fulfill the requirements for extended life and longer circulation. Notes printed on SyntheC are also easy to process over longer periods of time using automatic banknote inspection systems. All in all, this new substrate ensures the currency stays attractive while in circulation, thereby complying with central banks’ clean note policies.
Synthec

- Ideal for rough circulation conditions
- Enhanced mechanical stability
- Optimized resistance to tear
- Resists moisture and soiling
- Highly economical
Fewer tears mean longer circulation

Because banknotes exchange hands on a frequent basis, their durability is taxed to the extreme. Synthec was conceived to overcome that problem. The especially high percentage of synthetic fibers (approx. 20%) that it contains ensures higher mechanical stability from the very beginning, giving Synthec the necessary durability and tearing resistance to ensure a longer circulation life.

Soil-repellant surface stays attractive longer

Heavy soiling continues to be the chief reason for banknotes being removed from circulation prematurely. People have different habits when it comes to the way they carry and handle their money, which only accelerate this process. That is why Synthec features a coating that effectively protects the surface of the substrate from moisture and soiling, even under the harshest conditions.

Synthec is cost-effective – high value at low cost

Synthec is especially attractive for low denominations. Printed on Synthec they can remain in circulation considerably longer thanks to their improved durability. Unlike other substrates intended to keep notes in circulation longer, Synthec is available at very little additional cost, making it an economically attractive solution.

Consistent security either by the series or one denomination at time

Synthec is available with every security feature for which Louisenthal banknote paper is renowned. That degree of flexibility means Synthec can be integrated into a current series of notes at any time. There is no noticeable difference between banknotes of the same series printed on conventional paper and those printed on Synthec.
Synthec notes circulate longer

Tearing resistance at 23°C and 50% humidity

<table>
<thead>
<tr>
<th>Elmendorff (mN)</th>
<th>Standard banknote paper</th>
<th>Synthec banknote paper</th>
</tr>
</thead>
<tbody>
<tr>
<td>900</td>
<td></td>
<td>1500</td>
</tr>
</tbody>
</table>

Louisenthal substrate options

<table>
<thead>
<tr>
<th>Substrate</th>
<th>Standard</th>
<th>LongLife</th>
<th>Synthec</th>
<th>StrongLife</th>
</tr>
</thead>
<tbody>
<tr>
<td>Function</td>
<td>Composition</td>
<td>100% cotton fibers + coating</td>
<td>80% cotton fibers + approx. 20% synthetic fibers + coating</td>
<td>100% cotton fibers + edge-tear resistance + coating</td>
</tr>
<tr>
<td>Moisture desorption</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
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<tr>
<td>Soiling resistance</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
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<tr>
<td>Mechanical stability</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
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<tr>
<td>Edge protection</td>
<td>■</td>
<td>■</td>
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</tbody>
</table>
Synthec at a glance:

- Banknote paper with optimum mechanical stability
- Available with all security features
- Soil and moisture-resistant surface
- Helps banknotes stay clean and circulate longer
- High value at low cost