EFFICIENT LASER SURFACE FUNCTIONALIZATION

Eco-friendly technology creating new properties on the treated material surface.

Benefits
- Friction and wear resistance
- Water and bacteria repellence
- Anti-Icing
- Modulation of optical properties
- Decorative and aesthetic

Materials
- Metals and alloys
- Glass and dielectrics
- Polymers
- Composite materials

Laser Systems and Equipment
- High intensity ps laser systems (<2 ps, 1-10 mJ, 1-100 kHz @ 1030 nm)
- Exceptional beam quality (M2<1.2)
- From IR – UV
- Different scanners

HiLASE Services
- Evaluating customers problem
- Proposing suitable structure
- Creating and testing sample surfaces
- Process development and optimization
- Consulting and support during process implementation

Areas of Application
- AEROSPACE
- AUTOMOTIVE
- BIOMEDICAL AND PHARMACEUTICAL
- POWER GENERATION
- TOOLING
- FOOD PRODUCTION
- HOME APPLIANCES

Performance

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Super-hydrophobicity / self-cleaning surface</td>
<td>SCA up to 180°</td>
</tr>
<tr>
<td>Hydrophilicity</td>
<td>SCA &lt; 10°</td>
</tr>
<tr>
<td>Reflectance</td>
<td>&lt; 5% of UV to near IR (NIR)</td>
</tr>
<tr>
<td>Reduced bacteria growth</td>
<td>up to 98%</td>
</tr>
<tr>
<td>Productivity</td>
<td>&gt; 100 cm²/min</td>
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</tbody>
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