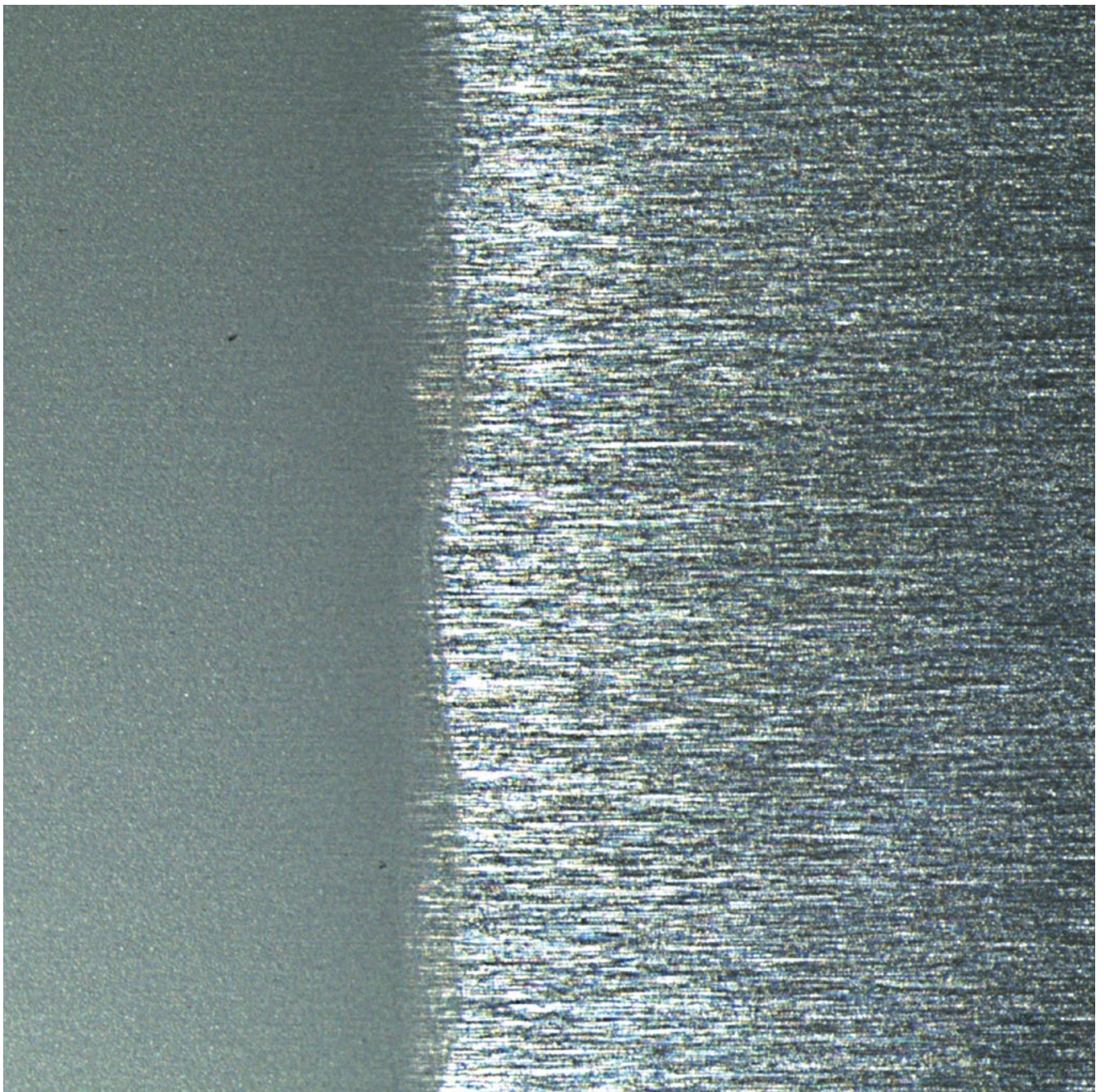




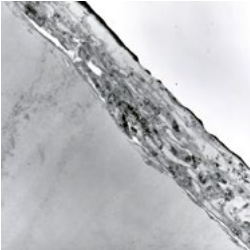
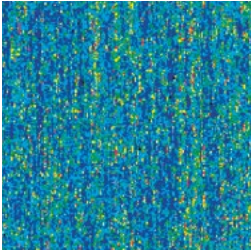
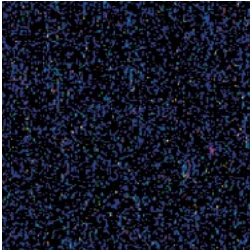
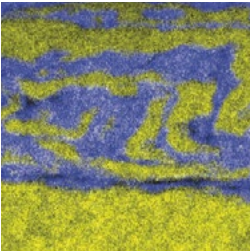

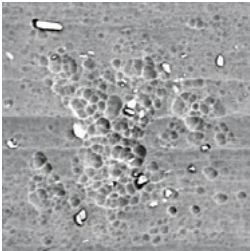
HPS*plus*

Surface treatment for the highest quality
and increased productivity



HPS^{plus}

Hydro Pretreated Surface (HPS) is a unique development by Hydro to meet the increasing surface quality demand of our customers.

Surfaces of rolled Al sheets	Standard surfaces	HPS ^{plus}
 <p>Cross section (by TEM after FIB preparation)</p>		 <p>ESMA map (O level)</p>
 <p>EFTEM</p>		 <p>SEM micrographs (oxide islands)</p>

Even more performance

HPS^{plus} represents a further development, ensuring an optimized homogeneous surface, enabling offset plate manufacturers to add value to their process chain, providing increased throughput rates on the production line, higher energy efficiency and consistent product quality.

Compared to normal degreasing, the Hydro Pretreated Surface Plus (HPS^{plus}) offers two main advantages: as a first step, the reaction of the aluminium strip to the etching and electro-chemical surface treatment is faster, resulting

in energy savings; and, secondly, deviations in surface topography are eliminated. The HPS^{plus} process therefore facilitates higher productivity and a consistent result in the customer's subsequent fabrication process.

By offering aluminium with optimized surface quality and reactivity Hydro contributes to an important quality criterion for aluminium processing. With HPS^{plus}, Hydro provides a benchmark product, fulfilling the requirements of high-quality markets.