

# Brake caliper plating

## Highest performance at lowest cost



General Metal Finishing

Corrosion resistant coatings

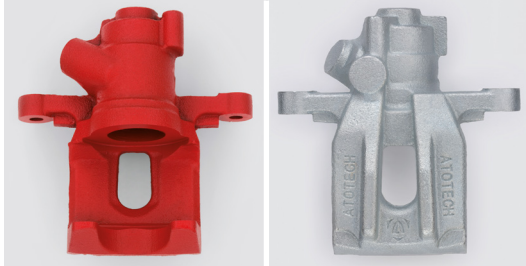
atotech.com

## Acid zinc for brake calipers – the economic plating solution



MKS' Atotech Zylite® acid zinc electrolytes are globally recognized in the brake caliper industry. The tried and trusted ammonia and boric acid-free product range is compliant with all regulations worldwide. In combination with MKS' Atotech environmentally sound passivates and sealers the process fulfills all automotive requirements, such as up to 600 h to red corrosion (production proven) according to DIN EN ISO 9227/ASTM B-117 and all major cyclic corrosion tests.

Chemical consumption and wastewater can be reduced significantly with MKS' Atotech unique auxiliary equipment, enabling customers to improve quality while reducing running costs.



### Corrosion performance

First white corrosion	First red corrosion
120 h	600 h

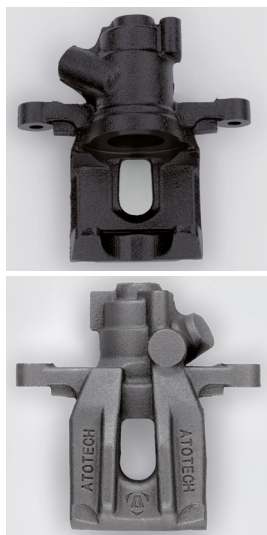
Corrosion performance according to DIN EN ISO 9227/ASTM B-117



### Process overview

Electrolyte	Passivate	Sealer	Approvals
Zylite® family	<b>EcoTri® HC 2</b> High performance thick film passivate	<b>Sealer 300 W family</b> <ul style="list-style-type: none"> <li>Inorganic</li> <li>Reactive</li> <li>Brake fluid compatible</li> <li>Reduced residue formation</li> </ul>	Standard in the industry Approved by <ul style="list-style-type: none"> <li>Akebono</li> <li>CBI</li> <li>Continental</li> <li>Hyundai-Mobis</li> <li>Mando</li> <li>Nissin</li> <li>ZF TRW</li> </ul>
	<b>EcoTri® NC</b> Co-free passivate		
	<b>EcoTri® NF</b> F-free thick film passivate		
	<b>EcoTri® NoCo 2.0</b> Co and F-free thick film passivate		
		<b>Corrosil® Plus 401</b> <ul style="list-style-type: none"> <li>Inorganic</li> <li>Brake fluid compatible</li> </ul>	Approved by various Tier 1s

# Acid zinc nickel for brake calipers – the high performance plating solution



Zinni® 220 is the newest innovation in MKS' Atotech acid zinc nickel product range. It was especially designed for brake caliper plating. Unmatched throwing power ensures high plating thickness in extreme low current density areas resulting in higher corrosion resistance compared to conventional acid zinc nickel electrolytes. This advantage can also be transformed into productivity benefits leading to higher capacity and better cost competitiveness.

The ammonia and boric acid-free electrolyte complies with all regulations worldwide. In combination with MKS' Atotech environmentally sound passivates and sealers for brake application the process fulfills all automotive requirements, such as up to 1,500 h to red corrosion according to DIN EN ISO 9227/ASTM B-117 and all major cyclic corrosion tests.

Chemical consumption and wastewater can be reduced significantly with MKS' Atotech unique auxiliary equipment. This results in utmost quality performance at lowest running costs possible.

## Corrosion performance

First white corrosion	First red corrosion
240 h	1,500 h

Corrosion performance according to DIN EN ISO 9227/ASTM B-117

## Process overview

Electrolyte	Passivate	Sealer	Approvals
Zinni® 220	<b>EcoTri® HC 2</b> High performance thick film passivate  <b>EcoTri® NC</b> Co-free passivate  <b>Tridur® DB (optionally Co-free)</b> F-free passivate	<b>Sealer 300 W family</b> <ul style="list-style-type: none"> <li>• Inorganic</li> <li>• Reactive</li> <li>• Brake fluid compatible</li> <li>• Reduced residue formation</li> </ul>	Standard in the industry Approved by <ul style="list-style-type: none"> <li>• Akebono</li> <li>• CBI</li> <li>• Continental</li> <li>• Hyundai-Mobis</li> <li>• Mando</li> <li>• Nissin</li> <li>• ZF TRW</li> </ul>

