

ZAPP TOOLING ALLOYS, INC.  
Z-MAX PM<sup>®</sup> CASE STUDY  
TWIN EXTRUSION BARREL LINERS

ZAPP

**TOOL TYPE**

Twin Extrusion Barrel Liners

**WORK MATERIAL**

Recycled Materials (Plastic and Steel Mixture)

**PROBLEM IDENTIFICATION**

Liners were not lasting as long as the customer would like resulting in excessive downtime. Heavy wear lines (grooves) up to .375" deep were common. Stress cracks would develop catching the slurry and causing build-ups that would shut down the extrusion process.

**SOLUTION**

Z-Max PM at Rc 62-64

**RESULTS**

Z-Max PM liners have been in production now for 2-1/2 years producing over 25 million lbs. With no signs of wear or cracks. Previous liner materials, D2 and CPM 10V, produced 4 million and 8 million lbs. Respectively before needing replacement. Production improvement is over 3 times that of 10V and the liners are still running! User will next try Z-Max PM at a slightly higher hardness (Rc 64-66) for even higher production rates.

Z-Max PM<sup>®</sup> is a registered trademark of Zapp Tooling Alloys

**TOOLING ALLOYS**

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Further information regarding our products and locations are available in our image brochure and under [www.zapp.com](http://www.zapp.com)

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