

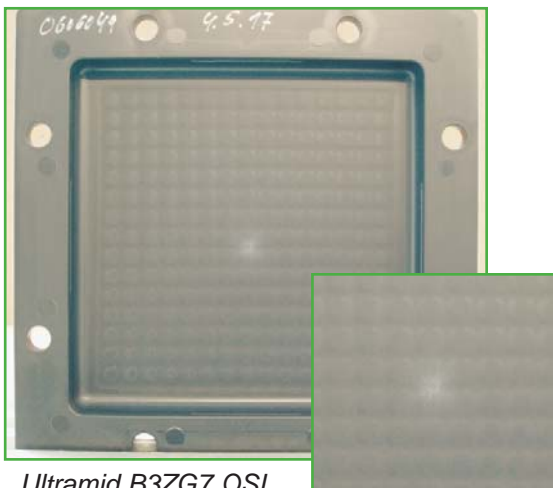
Ultramid® B3ZG7 OSI

(Optimized for Stone Impact)

PA6 (Polyamide 6)



Ultramid OSI - "Optimized for Stone Impact" for Automotive Oil Pans



Ultramid B3ZG7 OSI
No Leakage @ 60 mph



Cast Aluminum Pan
Leakage @ 50 mph

Performance Solutions:

With its strategic placement on the underside of the vehicle, automotive oil pans must withstand vibration, long-term heat aging in oil and be impact resistant to objects kicked up from the road. Based on these performance criteria, oil pans are currently made of cast aluminum, stamped steel or metal-plastic-metal. Now there is a new material option that provides weight reduction, part consolidation and feature integration that can be used for automotive oil pans - **Ultramid® B3ZG7 OSI**.

BASF has developed Ultramid® B3ZG7 OSI, an "Optimized for Stone Impact" grade that equals and exceeds the performance of cast aluminum in oil pans. The OSI material is a polyamide 6 (nylon 6), 35% glass reinforced and impact modified resin. It has survived a battery of experimental tests that reveal its initial cracking speed to be between 60 and 65 mph, whereas aluminum pans crack at an impact of around 50 mph under the BASF proprietary 'stone impact' simulation testing.

The usage of plastic for an oil pan allows a new level of design that can incorporate a windage tray, oil pickup tube and an integrated oil filter module to create an "oil pan module." Additional benefits include weight and cost reduction. Weight reduction contributes to decreased amounts of CO₂ being released into the atmosphere as well as improved gasoline mileage per gallon. A host of underbody applications can profit from the utilization of Ultramid's® B3ZG7 where stone impact is a concern.

Key Properties of Product/Material:

- Impact modified
- Exceeds resistance of traditional materials
- Contributes to weight and cost reduction
- Excellent long-term heat aging characteristics

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