



How Abrasive Blast Media Durability Relates to Dust

BUSINESS CHALLENGE

Transmet is frequently approached by people in the positions below with concerns about the amount of dust generated in their plant from shot blasting (abrasive blasting) operations.

Environmental Health & Safety Managers are concerned with potential safety hazards of excess dust and the health impact on company employees.

Production Managers are concerned about excess dust polluting the blast chamber and preventing team members from viewing their work.

Plant Engineers are concerned with excess dust leaving blast machines on the parts and affecting subsequent production steps.

TRANSMET APPROACH

Transmet wants to create an understanding of the relationship between durability of an abrasive blast media and the resulting dust. Transmet will use the Ervin Test Machine to measure durability (per SAE J445 Sec. 5.3), transmitted energy, and dust generation (per the 100% replacement method).

PROJECT OUTCOME

An investment casting foundry was removing shell from cast parts using Aluminum Oxide blast media. The combination of ceramic shell and breakdown of Aluminum Oxide was obscuring the operator's view of the workpiece. Dust filled the area around the blast machine.

After using Transmet Cast Aluminum Shot for less than five minutes, the operator made a comment that they would "never go back to Aluminum Oxide!". The Plant Engineer witnessed an increase in production rate and made a permanent process change to include Transmet Cast Shot.

