

**Hydrocode Calculation of an Aluminized
Explosive Chamber Test and Comparison
with Test Data**

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ABSTRACT

ARA has developed an equation of state and a preliminary afterburn model for the PBX-IH-135 (HAS9) explosive. The model for this explosive involves the aluminum particulate burn model used in previous Solid Fuel Air Explosive (SFAE) calculations. It also uses a carbon burn module used in previous SHAMRC TNT comparison calculations, and the Time Dependent JWL (TDJWL) afterburn model used in numerous calculations for afterburning explosives such as Tritonal. Test calculations were performed to systematically evaluate the model for IH-135 and are compared to data for a bare charge detonated in a nearly sealed chamber test. Results of the comparisons indicate the model performs well when compared to data from the chamber test performed by NSWC.

We identify the explosive fill in this report as PBX-IH-135 or IH-135. However, a previous name for the mixture was HAS-9, and references are also made by that name to be consistent with previously published test reports.