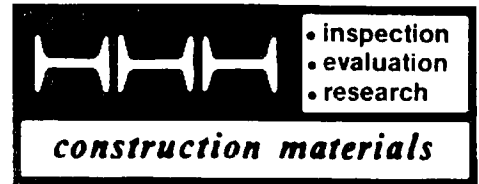


H. H. HOLMES TESTING LABORATORIES, INC.



• 170 Shepard Avenue • Wheeling, Illinois 60090 • 847-541-4040 • Fax: 847-537-9098

Report No. 3128.6
Re: Lid drop test
Date of Test: 5/1/02

Date of Report: 5/16/02

TESTING CONDUCTED FOR: Tuf-Tite, Inc.
500 Capital Drive
Lake Zurich, IL 60047

Attn.: Ted Meyers

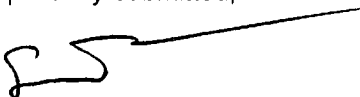
ITEMS TESTED: 24" Tuf-Tite Riser Lid with (1) 6" riser

OBJECT OF TEST: To determine the ability of the lid to incur impact utilizing ball drop method at subzero temperature

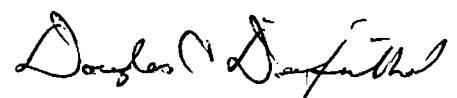
TEST PROCEDURE: Unit conditioned at -30+/-5 degrees F and Ambient RH for a minimum period of 24-hours. A 5-lb. stainless steel ball, (~3 1/4" dia.), was then dropped on the lid, starting at 36" and increasing in 6" increments.

FINDINGS: Drop Height: 36", impact caused no lid deformity or cracking
Drop Height: 42", impact caused no lid deformity or cracking
Drop Height: 48", impact caused no lid deformity or cracking
Drop Height: 54", impact caused no lid deformity or cracking
Drop Height: 60", impact caused no lid deformity or cracking
Drop Height: 66", impact caused no lid deformity or cracking
Drop Height: 72", impact caused no lid deformity or cracking
Testing terminated with no lid damage evident
Testing conducted at H.H. Holmes testing facility
Client notified verbally with the results

Respectfully submitted,



Scott R. Nelson
President



Douglas Diefenthal, PE