

January 4th, 2021

Tom Bell

Groditz Steel North America

A subsidiary of Schmiedewerke Gröditz GmbH

21660 W. Field Parkway

Deer Park, IL 60010

Dear Tom,

This letter is in regards to the two Specimens SWG EX1+EX55 VICTORY ESR and SWG 2344 VICTORY ESR, that were submitted for approval to the NADCA 229-2018 “Special Quality Die Steel & Heat Treatment Acceptance Criteria for Die Casting Dies”.

Schmiedewerke Gröditz GmbH, Germany submitted 2 specimens to be tested to the NADCA 229-2018 Standard.

- 1) Premium Class C - SWG EX1 VICTORY ESR
Premium Class C – SWG EX55 VICTORY ESR
- 2) Premium Class B - SWG 2344 VICTORY ESR

The testing results were completed by Element labs, 194 Internationale Blvd, Glendale Heights, Illinois 60139 and Case Western Reserve University.

A summary follows;

SWG EX1 VICTORY ESR Premium Class C

SWG EX55 VICTORY ESR Premium Class C

Microcleanliness – Pass

ASTM Grain size – 9.5

Banding – Pass

Charpy Values – 24, 22, 24 - Pass

Fatigue Test (CWRU) – Pass

Overall Evaluation - Pass

SWG 2344 VICTORY ESR Premium Class B

Microcleanliness – Pass

ASTM Grain size – 7.5

Banding – Pass

Charpy Values – 17,18,18 - Pass

Fatigue Test (CWRU) - Pass

Overall Evaluation - Pass

Regards,

Paul Brancaleon,

Director of Research, Education and Technology

North American Die Casting Association