

PROFIL® A9N™ Clinch Nut:

Mechanically Attached Fastener Provides Enhanced Performance and Design Flexibility for New Aluminum Tailgate

OVERVIEW

Customer:
Global Automotive Manufacturer

Application:
Vehicle Tailgate

Solution:
A9N™ Series Clinch Nut

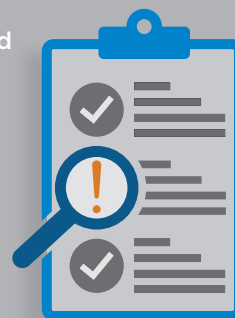
The utilization of mechanically attached fasteners continues to rise as the automotive industry shifts to lighter weight solutions like aluminum. The PROFIL® A9N Clinch Nut is ideal for applications that use this in-demand material.



CHALLENGE

Switch from steel to aluminum tailgate created fastener challenges

- Switching tailgate material from steel to aluminum did not support the use of weld fasteners
- Eliminated need for expensive weldable aluminum fasteners
- Much larger size of required aluminum weld fasteners severely limited design flexibility



SOLUTION

PROFIL® A9N™ Series Clinch Nut

- Round clinch nuts – ideal for aluminum applications
- Clinch into aluminum from 1.20 mm to 5.0 mm
- Can be used in all areas of the vehicle
- Meets ISO Class 10 requirements



RESULTS

Mechanically Attached Fastener enabled steel/aluminum design

- The design flexibility of mechanically attached fastener enabled a steel/aluminum design which was not possible with a weld fastener
- Welding process eliminated – no part damage due to cold welds or weld splatter
- Unique clinch nut design provided secure, permanent installation with high torque performance
- Repeatable install consistently met performance requirements

