



TEKNOR APEX MATERIALS SOLUTIONS: Heat Stabilized Creamid® PA66

Replaces high performance polymers by maintaining elongation and mechanical properties after thermal aging

Markets

Automotive
Industrial

Applications

Removable,
Semi-Permanent,
Permanent Plastic
Clips, Cable Ties,
and Fasteners

High-Temp Sensors
and Housings

High-Temp Hose
Clamps

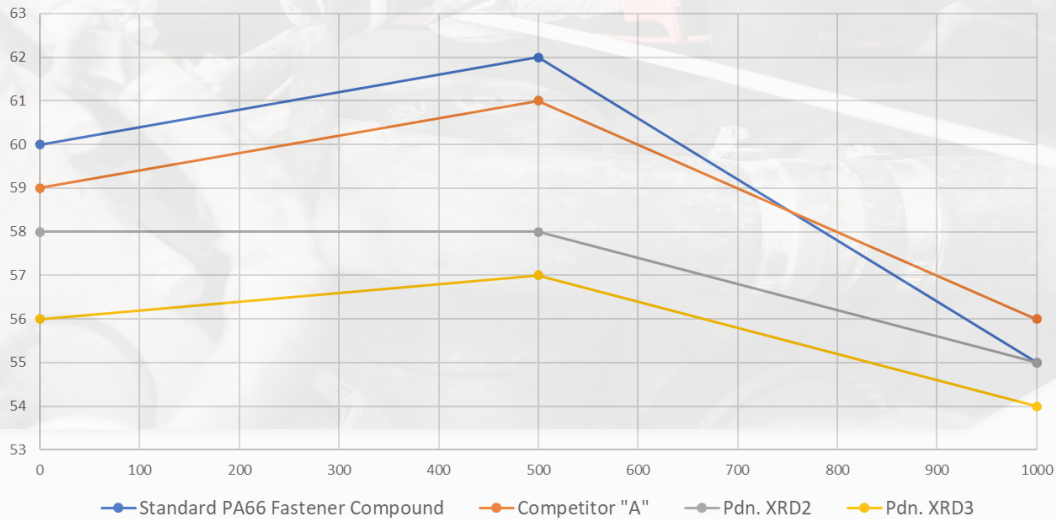
Features & Benefits

- Fasteners pass insertion/extraction tests after 1,000 hours at 150° C.
- Maintains both tensile strength and elongation after 1,000 hours of heat aging at 150°C.
- Superior toughness after thermal aging at 150°C
- Processable with excellent flow on standard injection molding equipment
- Sustainable, regrindable and recyclable alternative to non-recyclable offerings

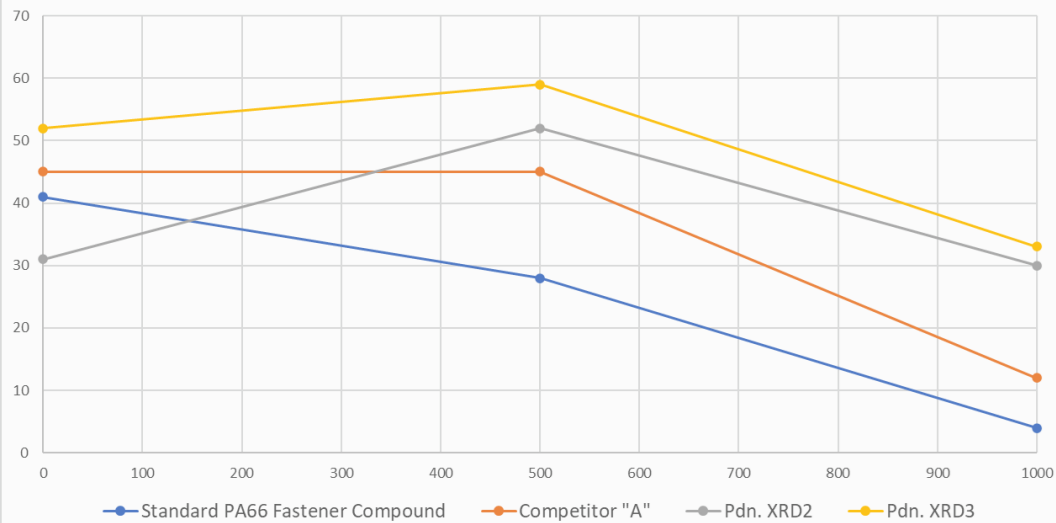
FEATURE	COMPETITIVE MATERIAL	C4HZA*9200 XRD2 1153678	C3HZA*9200 XRD3 1153682
Tensile Strength MPa	58	60	59
Initial Elongation %	26	34	25
Tensile Strength (1,000 hrs. @ 150°C)	58	62	58
% Elongation (1,000 hrs. @ 150°C)	5	24	21

Validated Manufacturing Scale-up

Verification of Production Scale-up:
Tensile Strength MPa (yield)



Verification of Production Scale-up:
Elongation % (break)



- Tensile Strength and Elongation retention of Production scale manufactured lots were validated
- Creamid® C4H7ZA*9200 XRD2 & XRD3 maintained **over 30% absolute elongation after aging** compared to Competitor "A", which **averaged 12% Elongation** with a large standard deviation of 9 (6,5,8, 27,15), **compared to std. dev. of 0.9 and 1.2** for XRD2 & XRD3 respectively