

## NYLON BONDING ADHESIVE - TA4550



**Permabond TA4550 is a nylon bonding adhesive that also bonds plastics, metals, and glass.**

Permabond TA4550 forms high-strength bonds to nylon, other plastics, composites, and metals. It is a two-part, 2:1, low-odor, high viscosity, thixotropic structural acrylic adhesive.

TA4550 requires no surface primers or additional surface treatment before bonding, facilitating high-speed production and efficiency. This high viscosity provides excellent flow control properties for more controlled, accurate dispensing, even in vertical applications.

Extremely high shear and peel strength on nylon and a high level of toughening provide outstanding resistance to impact and vibration.

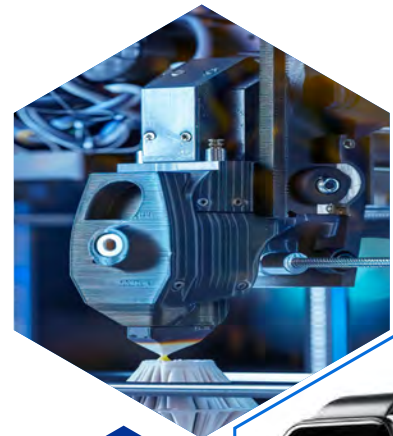


### KEY FEATURES:

- ▶ Excellent adhesion to nylon
- ▶ Bonds nylon to metals, plastics, & composites
- ▶ Minimal surface preparation required
- ▶ Non-slumping
- ▶ Outstanding shear and peel strength
- ▶ Toughened, great impact & vibration resistance
- ▶ Low-odor
- ▶ Fast, room temperature cure
- ▶ Easy to apply
- ▶ Non-flammable - easy to store and transport

### IDEAL FOR BONDING:

- Acrylic
- Aluminum
- CFRP
- FRP
- GRP
- Mild Steel
- Nylon
- PBT
- PMMA
- PVC
- PC
- Stainless Steel
- *And many more*





**DESCRIPTION**

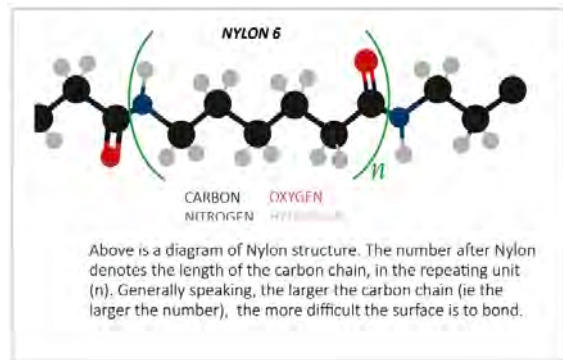
The following technical data for Permabond TA4550 is a guideline and does not constitute a specification. For full technical information, please refer to the technical data sheet, available at [www.permabond.com](http://www.permabond.com). Please contact Permabond to discuss your nylon bonding project.

	TA4550
Description	Two-part nylon bonding acrylic adhesive
Appearance	Dark green (mixed)
Features	Outstanding strength on nylon & other substrates. Very tough, non-slumping & no primers needed.
Viscosity	100,000 cP mPas (thixotropic)
Shear Strength	Nylon/PA 6: >6 N/mm2 (>870 psi) (Substrate Failure) / Mild Steel: 24 N/mm2 (3500 psi)
Fixture time	5 minutes @ 23°C (73°F)
Working Strength	2 hours @ 23°C (73°F)
Storage	Temperatures between 2 and 7°C (35 to 45°F)
Packaging	10 x 50ml, 6 x 400ml, Bulk on request

**WHY IS NYLON SO HARD TO BOND?**

Traditionally, nylon (polyamide) has been considered very challenging to bond. This is mainly due to its low surface wettability, (also known as low surface energy), hydrophobic nature and low chemical reactivity, all of which mean that it's quite difficult for an adhesive to properly wet, and therefore bond, the substrate. Amongst other reasons, nylon also tends to absorb moisture from the air around it, which ultimately can alter its material properties, reducing adhesive effectiveness.

Permabond has really spearheaded the breakthrough in nylon bonding adhesives, creating products such as TA4550 that overcome these inherent challenges with this substrate - an adhesive so strong that the nylon will fail before the bond does!



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