



EnduroSharp® Products

Torlon® Aircraft Maintenance Tools

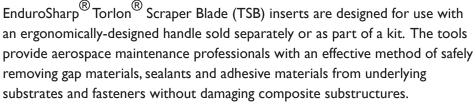
Performance Plastics, Ltd. is a precision injection molder, specializing in geometrically complex components utilizing chemically inert materials. Our expertise in complex components led us to create the patented EnduroSharp® line of Torlon® Aircraft Maintenance Tools. The EnduroSharp® product line consists of nonmetallic tools used to remove adhesives, sealants, and coatings from aircraft structures.

- Approved for use on U.S. Air Force, U.S Marine Corp., U.S. Navy and Foreign military aerospace systems.
- Prevents damage to metallic (primed) and nonmetallic components or substrates
- Is stiffer, and maintains a superior cutting edge, compared to alternative thermoplastic removal tools
- Increased material removal rates
- Easily re-sharpened
- Heat resistant to 500°F/260°C
- Chemical resistant to standard aerospace fluids and solvents

EnduroSharp® Product Line



EnduroSharp[®] Torlon[®] Scraper Blades (TSB)



Item Numbers:TSB-170,TSB-230,TSB-500,TSB-750,TSB-1200



EnduroSharp[®] Torlon[®] Adhesive Reamer (TAR)

EnduroSharp[®] Torlon[®] Adhesive Reamer (TAR) tools are non-metallic, multi-fluted, straight-walled reamers. They are used to remove non-metallic debris such as cured sealants and adhesives from fastener and bushing holes in metallic or composite structures without damaging the structures.

Item Numbers: TAR-190, TAR-2155, TAR-250, TAR-2755, TAR-313, TAR-3375, TAR-3615, TAR-375, TAR-4005



EnduroSharp[®] Torlon[®] Adhesive Cutter (TAC)

EnduroSharp[®] Torlon[®] Adhesive Cutter (TAC) tools are designed to be used with the standard (non-segmented) and tetherable (segmented) mandrels. They can also be used with electric (corded and battery powered) and pneumatic drills rated at 600 RPM or less.

 $Item\ Numbers: TACS-C-1, TACS-C-2, TACS-C-3, TACS-C-4, TACA-C-, TACA-C-2$



EnduroSharp[®] Torlon[®] Gap Blades (TGB)

EnduroSharp[®] Torlon[®] Gap Blades (TGB) inserts, available in five widths and three depths per width, are designed for use with an ergonomically-designed handle sold separately or as part of a kit. The gap blades provide aerospace maintenance professionals precise depth specific, incremental skiving of gap filler materials and are approved for use on U.S.Air Force, U.S Marine Corp., U.S. Navy and Foreign military aerospace systems.

Item Numbers:TGB-75-75,TGB-75-16,TGB-75-25,TGB-10-75,TGB-10-16,TGB-10-25,TGB-12-75,TGB-12-16,TGB-12-25,TGB-17-75,TGB-17-16,TGB-17-25,TGB-25-75,TGB-25-16,TGB-25-25



EnduroSharp[®] Torlon[®] Gap Filler Removal (GFR) Bits



EnduroSharp[®] Torlon[®] Gap Filler Removal (GFR) Discs

EnduroSharp[®] Torlon[®] Gap Filler Removal (GFR) Bits are designed for use with an ergonomically-designed pneumatic tool. The tools provide aerospace maintenance professionals with an effective method of safely removing flexibilized epoxy gap materials from gaps and epoxy fillers from fasteners without damaging composite substructures and fasteners.

Item Numbers: GFRB-T5030-SF-162

EnduroSharp [®] Torlon [®] Gap Filler Removal (GFR) Discs are designed for use with an pneumatic tool. The tools provide aerospace maintenance professionals with an effective method of safely removing flexibilized epoxy gap materials as well as cutting or scoring thick elastomeric coatings without damaging composite substructures.

Item Numbers: GFRD-25FDA55, GFRD-25FDS55, GFRD-25HDA55, GFRD-25HDS55, GFRD-2517R55, GFRD-2585R55, GFRD-2517S55, GFRD-2585S55

PERFORMANCE
LASTICS
EnduroSharp®

EnduroSharp® Product Kits



Deluxe EnduroSharp® Scraper
Blade & Holder Kit with
Pnuematic Tool



EnduroSharp® Scraper Blade & Holder Kit



Deluxe EnduroSharp[®] Gap Blade & Holder Kit with Pnuematic Tool



EnduroSharp® Gap Blade & Holder Kit



EnduroSharp® Mandrel Torlon® Adhesive Cutter (TAC) Kit

Deluxe EnduroSharp[®] Scraper Blade & Holder with Pneumatic tool kits are equipped to offer you everything you need when using the scraper blade to remove adhesive. The kit comes complete with a Pneumatic tool, standard scraper blade holder, pocket handle, and 10 EnduroSharp[®] Torlon[®] Scraper Blades (2 of each size: TSB-170,TSB230,TSB-500,TSB-750, and TSB-1200).

Item Number: DES004

EnduroSharp[®] Scraper Blade & Holder kits are equipped to offer you the essentails when using the scraper blade to remove adhesive. The kit comes complete with a standard scraper blade holder, pocket handle, and 10 Enduro-Sharp[®] Torlon[®] Scraper Blades (2 of each size:TSB-170,TSB230,TSB-500, TSB-750, and TSB-1200).

Item Number: ESSHK005

Deluxe EnduroSharp[®] Gap Blade & Holder with Pneumatic tool kits are equipped to offer you everything you need when removing gap filler materials. The kit comes complete with a Pneumatic tool, standard scraper blade holder, pocket handle, and 15 EnduroSharp[®] Torlon[®] (I of each size:TGB-75-75, TGB-75-16,TGB-75-25,TGB-10-75,TGB-10-16,TGB-10-25,TGB-12-75, TGB-12-16,TGB-12-25,TGB-17-75,TGB-17-16,TGB-17-25,TGB-23-75, TGB-23-16, and TGB-23-25).

Item Number: DEG007

EnduroSharp[®] Gap Blade & Holder kits are equipped to offer you the essentials when removing gap filler materials. The kit comes complete with a standard scraper blade holder, pocket handle, and 15 EnduroSharp[®] Torlon[®] (1 of each size:TGB-75-75,TGB-75-16,TGB-75-25,TGB-10-75,TGB-10-16, TGB-10-25,TGB-12-75,TGB-12-16,TGB-12-25,TGB-17-75,TGB-17-16, TGB-17-25,TGB-23-75,TGB-23-16, and TGB-23-25).

Item Number: ESGHK006

EnduroSharp[®] Mandrel Torlon[®] Adhesive Cutter (TAC) Kits contain 14 Enduro-Sharp[®] Torlon[®] Adhesive Cutters (5 of size: TACS-C-1 and TACS-C-2) (2 of size: TACS-C-3 and TACS-C-4) 4 Standard (non-segmented) Mandrels (1 of each size: STAC-M-3, STAC-M-4, STAC-M-5, STAC-M-6), 4 Tertherable (segmented) Mandrels (1 of each size: TTAC-M-3, TTAC-M-4, TTAC-M-5, TTAC-M-6), 2 Swivel Assemblies (1 of each size: TACS-S-1, TACS-S-2), and 1 Multi Wrench.

Item Number: ESCKD008

^{*}The Torlon® Adhesive Cutters can be used in a variety of electric (corded and battery powered) and pneumatic drills rated at 600 rpm or less.



EnduroSharp Product Kits



EnduroSharp[®] Andrew Tool Torlon[®] Adhesive Cutter (TAC) Kit

EnduroSharp® Andrew Tool Torlon® Adhesive Cutter (TAC) Kit contains 10 EnduroSharp® Torlon® Adhesive Cutters (5 of each size:TACA-C-I,TACS-A-2) 4 Locating Buttons (I of each size:ATC00254D-191,ATC00254D-250, ATC00254D-312, ATC00254D-375) 2 Quick Change Bushing (ATC00483 and ATC00484), I Torlon® Adhesive Cutter Adapter, I Alignment and Spindle Lock Tool, and I Multi Wrench.

Item Number: ESCKA009



EnduroSharp® Surface Prep Kit

Adhesively bonded nutplates are increasingly being utilized in the manufacture of aerospace structures, with extensive use in securing removable maintenance access panels. When a nutplate fails, it can take an excessive amount of time to replace, resulting in undesirable aircraft down-time. Performance Plastics, in partnership with various suppliers, has devolved a suite of tools (EnduroSharp® Surface Prep Kit) to assist aircraft maintainers in quick removing the residual adhesive/sealant on the aircraft structure (remnants from a failed nutplate) and preparing the surface of the aircraft structure and the new replacement nutplate for bonding.

Item Number: ESNSP001



EnduroSharp® C-130 Prop Hub Adhesive Material Removal

EnduroSharp® C-130 Prop Hub Adhesive Material Removal Kit comes complete with case with custom foam inserts that contains: 2 each pneumatic tools, I each Class I, Division 2 flash light, I each contoured sharpening fixture (requires I20 - I80 grit abrasive paper, sold separately) and 4 each EnduroSharp® Torlon® Scraper Blades (2 each left hand and 2 each right hand).

Note: Required Left and Right Hand Prop Hub Abrasive Pads sold separately (Different Vendor)
Special Order Item (Availability 6-8 weeks)

Item Number: ESC130001



EnduroSharp® Nutplate Abrasion Tool "NAT"

EnduroSharp® Nutplate Abrasion Tool, "NAT" consist of I aluminum upper handle (top), I aluminum lower handle (base) and 4 nutplate base inserts (CR3, CR4, CR5, and CR6). Each nutplate base insert requires use with abrasive pads (sold separately). The NAT is used to abrade bond surfaces of CR series adhesively bonded nutplates. The rugged case comes with a high-density custom foam insert for easy inventory and protection.

Note: Abrasive Pads sold separately

Item Number: ESNAT-I



EnduroSharp R Accessories



EnduroSharp[®] Standard Scraper Blade Holder EnduroSharp® Pneumatic Removal Tool operates at a pressure of 90 psi (Max). For use with EnduroSharp® Torlon® Scraper Blades and EnduroSharp® Torlon® Gap Blade Adapter. Swivel Air Regulator fitting to prevent quick disconnect fitting galling and provide dial adjustment air flow regulation.

(Torlon® Gap Blades requires the use of the Torlon® Gap Adapter)

Item Number: ESPT001



EnduroSharp[®] Standard Scraper Blade Holder EnduroSharp[®] Standard Scraper Blade Holder (Standard Handle) is for use with EnduroSharp[®] Torlon[®] Scraper Blades and EnduroSharp[®] Torlon[®] Gap Blade Adapter.

(Torlon® Gap Blades requires the use of the Torlon® Gap Adapter)

Item Number: ESHH003



EnduroSharp® "Pocket" Scraper Blade Holder EnduroSharp[®] "Pocket" Scraper Blade Holder is for use with EnduroSharp[®] Torlon[®] Scraper Blades and EnduroSharp[®] Torlon[®] Gap Blade Adapter.

(Torlon[®] Gap Blades requires the use of the Torlon[®] Gap Adapter)

Item Number: ESSBH002



EnduroSharp[®] Holder Adapter for Gap Blades (Gap Blade Adapter) EnduroSharp[®] Holder Adapter for Gap Blades (Gap Blade Adapter) requires the use of the EnduroSharp® Pneumatic Tool, EnduroSharp® "Pocket" Blade Holder, or EnduroSharp® Standard Scraper Blade Holder.

(For Torlon® Gap Blades)

Item Number:TGBA-001



EnduroSharp[®] Ratcheted T-Handle EnduroSharp $^{\circledR}$ Ratcheted T-handle is for use with standard and segmented mandrel and the EnduroSharp $^{\circledR}$ Torlon $^{\circledR}$ Adhesive Reamers.

Item Number: ESRTH001



EnduroSharp® Scraper Blade Sharpener EnduroSharp[®] Scarper Blade Sharpener is a durable hand-held portable sharpening fixture used to sharpening the EnduroSharp[®] Torlon[®] Scraper Blades. The sharpener along with 120-180 grit sand paper, allows for quick sharping of the Torlon[®] Scraper Blade, while maintaining the 25⁰/25⁰ asymmetrical 1/3-2/3 cutting edge. The simplistic compact design enables the operator to sharpen the Torlon[®] Scraper Blade while on the job site without the need for additional support items.

Item Number: ESSBS001



EnduroSharp Accessories



EnduroSharp® Multi Wrench

EnduroSharp[®] Multi Wrench is used with the Torlon[®] Adhesive Cutter tools, Tertherable (segmented) Mandrels, and Torlon[®] Adhesive Cutter Adapter.

Item Number: TACW-W-I



EnduroSharp[®] Standard (non-segmented) Mandrels

EnduroSharp[®] Standard (non-segmented) Mandrels are used with Torlon[®] Adhesive Cutter Blades (mandrel mounted). The mandrels can be used in a variety of electric (corded and battery powered) and pneumatic drills rated at 600 rpm or less.

Item Numbers: STAC-M-3, STAC-M-4, STAC-M-5, STAC-M-6



EnduroSharp® Tertherable (segmented) Mandrels

EnduroSharp[®] Tertherable (segmented) Mandrels consists of 4 segments. The Tertherable Mandrels are used with Torlon[®] Adhesive Cutter Blades (mandrel mounted) and EnduroSharp[®] Swivel Assemblies . The mandrels can be used in a variety of electric (corded and battery powered) and pneumatic drills rated at 600 rpm or less.

Item Numbers: TTAC-M-3, TTAC-M-4, TTAC-M-5, TTAC-M-6



EnduroSharp® Combination Alignment and Spindle Lock Tool EnduroSharp® Combination Alignment and Spindle Lock Tool is used to realign the tool head and lock the spindle on the pneumatic "Surface Preparation Tool".

Item Number: ATC00531





EnduroSharp® Swivel Assembly

EnduroSharp® Swivels are used with the Tertherable (segmented) Mandrels.

Item Numbers:TACS-S-1,TACS-S-2



EnduroSharp® Locating Buttons

EnduroSharp[®] Locating Buttons are used with the pneumatic "Surface Preparation Tool" (Andrews Tool Company) in combination with the Torlon[®] Adhesive Cutter Blades (Andrews Tool), the Torlon[®] Adhesive Cutter Adapter and Quick Change Bushing.

Item Numbers: ATC00254D-191, ATC00254D-250, ATC00254D-312, ATC00254D-375



EnduroSharp Accessories



EnduroSharp[®] Back Up Pad "Quick Change" Adapter

EnduroSharp[®] Back Up Pack "Quick Change" Adapter is used with the pneumatic "Surface Preparation Tool" in combination with Type III, TR style abrasive pads.

Item Numbers: ATC00483, ATC00484



EnduroSharp® Torlon® Adhesive Cutter Adapter

EnduroSharp[®] Torlon[®] Adhesive Cutter adapter is used with the pneumatic "Surface Preparation Tool", in combination with the Torlon[®] Adhesive Cutter Blades (Andrews Tool).

Item Number: ATAC-A-I



EnduroSharp[®] NAT Abrasion Pads

EnduroSharp® NAT Abrasion Pads are used with the Nutplate Abrasion (NAT) Tool Kit. The NAT Abrasion Pads are used with the corresponding nutplate base insert size. The pads are used with the nutplate base insert to abrade bond surfaces of CR series adhesively bonded nutplates.

Item Number: NAT-AP-CR3, NAT-AP-CR4, NAT-AP-CR5, NAT-AP-CR6



EnduroSharp® C-130 Prop Hub Abrasion Pads

EnduroSharp® C-130 Prop Hub Abrasion Pads are used with the C-130 Prop Hub Adhesive Removal Kit. The C-130 Prop Hub Abrasion Pads are used with the C-130 Prop Hub Adhesive Removal Kit to safely remove adhesive from the prop hub. The abrasion pads are sold in boxes of 10, you can specify whether

Item Number:ESCI30-AP-RH, ESCI30-AP-LH, ESCI30-AP-KT







Performance Plastics
4435 Brownway Ave
Cincinnati, OH 45209
(513)321-8404
ppl@performanceplastics.com
www.performanceplastics.com



