

## 3M™ Trizact™ Polishing Pad HT-800-PC

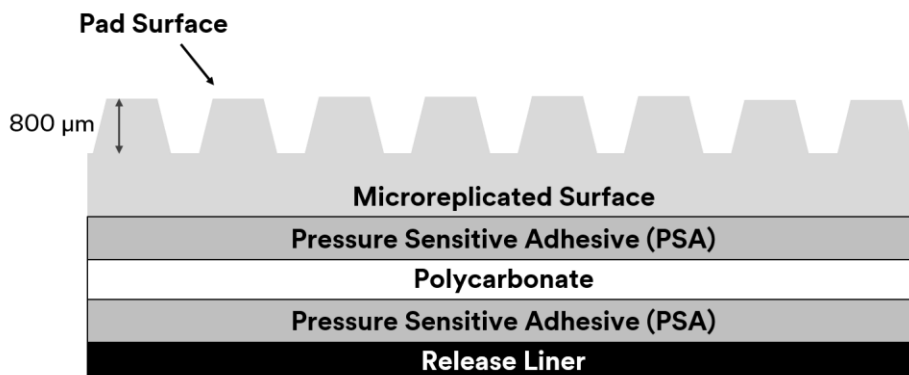
### Product Description

3M™ Trizact™ Polishing Pad HT-800-PC is a microreplicated slurry lapping pad designed for finishing ultra-hard substrates such as sapphire and ceramics. Comprised of a microreplicated surface, this pad produces a good surface finish with high removal rates for an economical finishing solution when combined with a 3M™ Trizact™ Composite Slurry. This pad can be adhered to typical single- or double-sided lapping platens.

### Key Advantages

- 800 micron cell depth for long pad life
- High removal rates
- Good surface finish
- Low total thickness variation (TTV)
- Can be directly mounted onto flat/smooth and waffle pattern lapping plates
- Easy pad replacement
- Pad diameters up to 50.5 inches (1282 mm)

### 3M™ Trizact™ Polishing Pad HT-800-PC



Not to scale

### Product Construction/Material Description

#### 3M™ Trizact™ Polishing Pad HT-800-PC

Property	Value
Pad size	Diameters up to 50.5 inches (1282 mm)

### Applications

- A-, C- and R-plane sapphire fine lapping
- Fine lapping for silicon carbide (SiC), zirconia (ZrO<sub>2</sub>), glass, silicon oxide and silicon materials
- 3M™ Trizact™ Polishing Pad HT-800-PC can be used with either single- or dual-sided lapping tools

### Application Techniques

- Use with a 3M™ Trizact™ Composite Slurry\*
- Clean platen and measure flatness before adhering pad
  - Recommended platen flatness for double-sided lapping is less than 10 microns for total thickness variations (TTVs) less than 5 microns

# 3M™ Trizact™ Polishing Pad HT-800-PC

- Mount 3M™ Trizact™ Polishing Pad HT-800-PC and drill the slurry holes
  - A unibit drill bit is recommended for drilling slurry holes
- Dress/condition the pad for about 10 minutes to planarize asperities by running empty resin/composite carriers (without workpiece) along with the Trizact slurry before first use
- 3M recommends that continuous operating temperature remains below 60°C (140°F)
- Pad can be reconditioned if TTVs exceed the specification

\*See the 3M™ Trizact™ Composite Slurry Technical Data Sheet for more information.

## Typical Performance Characteristics

**Note:** The following technical information and data should be considered representative or typical only and should not be used for specification purposes. Final product specifications and testing methods will be outlined in the products Certificate of Analysis (COA). Contact your local 3M Technical Representative for this product's COA.

## 3M™ Trizact™ Polishing Pad HT-800-PC

### Double-Sided Lapping

3M™ Trizact™ Composite Slurry	A-Plane		C-Plane	
	Removal Rate* (µm/min)	Ra (nm)	Removal Rate* (µm/min)	Ra (nm)
DGS-50, 1 µm	0.3	6	0.3	6
DT-100, 1.5 µm	1.5	14	1.1	13
DT-50, 3 µm	1.3	20	0.9	21
DT-100, 3 µm	1.8	25	1.2	24

### Process Conditions

Pad Diameter (OD x ID)	18.3" x 7.1" (465 mm x 180 mm)
Platen Speed	65 rpm
Slurry Flow Rate	5.4 ml/min (DT series), 5.1 ml/min (DGS series)
Downforce	4.1 psi
Polishing Time	30 min
Wafers/Parts	Nine 2" (51 mm) diameter sapphire

\*Initial removal rates are higher with higher incoming Ra.

## Storage and Shelf Life

The shelf life of 3M™ Trizact™ Polishing Pad HT-800-PC is 24 months from the date of manufacture when stored flat in the original packaging materials at 21°C (70°F) and 50% relative humidity.

3M recommends storing the Trizact polishing pad flat in its original packaging materials.

# 3M™ Trizact™ Polishing Pad HT-800-PC

**Regulatory:** For regulatory information about this product, contact your 3M representative.

**Technical Information:** The technical information, recommendations and other statements contained in this document are based upon tests or experience that 3M believes are reliable, but the accuracy or completeness of such information is not guaranteed.

**Product Use:** Many factors beyond 3M's control and uniquely within user's knowledge and control can affect the use and performance of a 3M product in a particular application. Given the variety of factors that can affect the use and performance of a 3M product, user is solely responsible for evaluating the 3M product and determining whether it is fit for a particular purpose and suitable for user's method of application.

**Warranty, Limited Remedy, and Disclaimer:** Unless an additional warranty is specifically stated on the applicable 3M product packaging or product literature, 3M warrants that each 3M product meets the applicable 3M product specification at the time 3M ships the product. 3M MAKES NO OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY IMPLIED WARRANTY OR CONDITION ARISING OUT OF A COURSE OF DEALING, CUSTOM OR USAGE OF TRADE. If the 3M Product does not conform to this warranty, then the sole and exclusive remedy is, at 3M's option, replacement of the 3M product or refund of the purchase price.

**Limitation of Liability:** Except where prohibited by law, 3M will not be liable for any loss or damage arising from the 3M product, whether direct, indirect, special, incidental or consequential, regardless of the legal theory asserted, including warranty, contract, negligence or strict liability.

**Disclaimer:** For industrial use only. Not intended, labeled or packaged for consumer sale or use.



## Electronics Materials Solutions Division

3M Center, Building 224-3N-11  
St. Paul, MN 55144-1000  
1-800-251-8634 phone  
651-778-4244 fax  
[www.3M.com/electronics](http://www.3M.com/electronics)

3M and Trizact are trademarks of 3M Company.  
Please recycle.  
©3M 2024. All rights reserved.  
60-5002-0909-7

**3M™ Trizact™ Polishing Pad HT-800-PC**