

# Silicon Carbide Abrasive Discs

Designed for metallographic applications to coarse and fine grind a wide variety of materials. They feature superior mineral grading, a unique resin top coat, and a latex additive in the paper. This combination resists water penetration, creating a durable, long-lasting disc with uniform cutting characteristics that minimizes sample distortion and deformation.

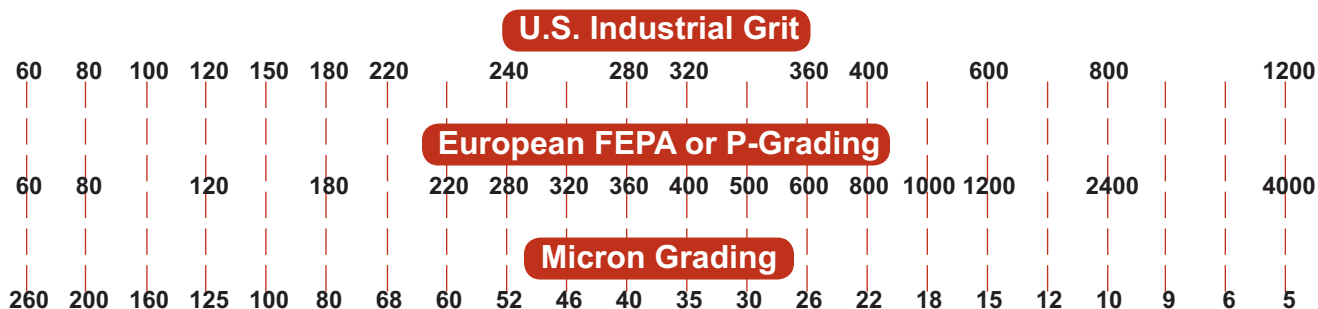
Allied's silicon carbide abrasive discs are made with high quality C weight backing and are recommended for general laboratory requirements.

## Features:

- ❖ Premium resin bonding system retains abrasive for sustained material removal and longer wear rates
- ❖ Durable C weight backing with latex additive for superior water resistance
- ❖ Special adhesive backing allows effortless removal of the disc from platen without adhesive transfer
- ❖ Pull tabs on all adhesive back discs for easy removal of adhesive liner



## Abrasive Grade Comparison Chart



## Plain Back Discs (Pk/100)

| Grit (FEPA)   | 8"<br>(~200 mm) | 10"<br>(~250 mm) | 12"<br>(~300 mm) |
|---------------|-----------------|------------------|------------------|
| 60 (P-60)     | 50-10000        | 50-11000         | 50-10145         |
| 80 (P-80)     | 50-10001        | 50-11003         | 50-10146         |
| 120 (P-120)   | 50-10005        | 50-11005         | 50-10150         |
| 180 (P-180)   | 50-10010        | 50-11010         | 50-10155         |
| 240 (P-280)   | 50-10015        | 50-11015         | 50-10160         |
| 320 (P-400)   | 50-10020        | 50-11020         | 50-10165         |
| 400 (P-800)   | 50-10025        | 50-11025         | 50-10170         |
| 600 (P-1200)  | 50-10030        | 50-11030         | 50-10175         |
| 600 Fine*     | 50-10029        | 50-11029         | 50-10174         |
| 800 (P-2400)  | 50-10035        | 50-11035         | 50-10176         |
| 1200 (P-4000) | 50-10040        | 50-11040         | 50-10177         |
| 1200 Fine**   | 50-10041        | 50-11041         | 50-10178         |
| Assortment    | ASSORT-P/B      | -                | -                |

(Includes 25 each 180, 320, 600, 1200/P4000 Grit)

### \* Why use 600 Fine Grit?

- ❖ Minimizes "loading" when preparing samples cold mounted in epoxy or acrylic
- ❖ Provides finer surface finish which may reduce overall polishing time

### \*\* Why use 1200 Fine Grit?

- ❖ When continued material removal is desired, following intermediate grinding steps (typically after 600 grit)
- ❖ Recommended for pre-diamond polishing, softer materials that smear, and step grinding for failure analysis

**Note:** As compared to 1200 (P-4000) grit, which is sputter coated and "polishes" more than "cuts", fine grit 1200 is electrostatically coated and "cuts" more than "polishes"



*Pull tab makes removing  
adhesive liner easy!*

### Adhesive Back Discs (Pk/100)

| Grit (FEPA)   | 2-7/8"   | 8"         | 10"          | 12"          |
|---------------|----------|------------|--------------|--------------|
|               |          | (~200 mm)  | (~250 mm)    | (~300 mm)    |
| 60 (P-60)     | -        | 50-10045   | 50-11045     | 50-10215     |
| 80 (P-80)     | -        | 50-10046   | 50-11047     | 50-10217     |
| 120 (P-120)   | -        | 50-10050   | 50-11050     | 50-10220     |
| 180 (P-180)   | -        | 50-10055   | 50-11055     | 50-10225     |
| 240 (P-280)   | 50-00060 | 50-10060   | 50-11060     | 50-10230     |
| 320 (P-400)   | 50-00065 | 50-10065   | 50-11065     | 50-10235     |
| 400 (P-800)   | 50-00070 | 50-10070   | 50-11070     | 50-10240     |
| 600 (P-1200)  | 50-00075 | 50-10075   | 50-11075     | 50-10245     |
| 600 Fine*     | -        | 50-10074   | 50-11074     | 50-10244     |
| 800 (P-2400)  | 50-00076 | 50-10076   | 50-11076     | 50-10246     |
| 1200 (P-4000) | 50-00077 | 50-10077   | 50-11077     | 50-10247     |
| 1200 Fine**   | -        | 50-10078   | 50-11078     | 50-10248     |
| Assortment    | -        | ASSORT-PSA | ASSORT-PSA10 | ASSORT-PSA12 |

(Includes 25 each 180, 320, 600, 1200/P4000 Grit)

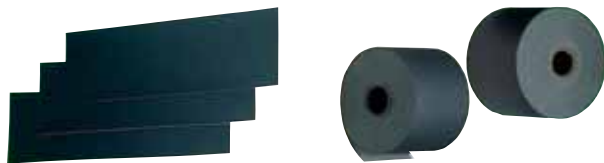
**8" (203 mm) Fine Grit Discs (Pk/100)**

Fine grit silicon carbide discs are electrostatically coated, allowing continued stock removal (cutting) after the 600 grit step. They differ from standard 800/2400 and 1200/4000 grit discs, which are sputter coated and "polish" more than "cut." Recommended for pre-diamond polishing, softer materials that smear or step grinding for failure analysis.

| Item     | Description          |
|----------|----------------------|
| 53-10035 | 1000 Grit Plain Back |
| 53-10040 | 1200 Grit Plain Back |
| 53-10042 | 1500 Grit Plain Back |
| 53-10043 | 2000 Grit Plain Back |
| 53-10044 | 2500 Grit Plain Back |

**Silicon Carbide Strips & Rolls**

| 3" x 11"<br>Adhesive Back Strips<br>(Pk/100) | Grit | 3-7/16" x 75'<br>Plain Back Rolls<br>(Each) |
|----------------------------------------------|------|---------------------------------------------|
| 50-10535                                     | 240  | 50-10395                                    |
| 50-10540                                     | 320  | 50-10400                                    |
| 50-10545                                     | 400  | 50-10405                                    |
| 50-10550                                     | 600  | 50-10410                                    |
| 50-10555                                     | 800  | 50-10411                                    |
| 50-10560                                     | 1200 | 50-10412                                    |

**Double Sided Adhesive Discs (Pk/10)**

Double sided adhesive discs are adhered to a non-magnetic platen used to secure plain back silicon carbide abrasive discs to a platen. Provides 25-75 disc pulls depending on grit size, cycle time and force.

| Item     | Description                      |
|----------|----------------------------------|
| 52-10005 | Double Sided Adhesive Discs, 8"  |
| 52-10003 | Double Sided Adhesive Discs, 10" |
| 52-10000 | Double Sided Adhesive Discs, 12" |

**Magnetic Fastening Discs (Pk/5)**

A rigid magnetic system disc with an adhesive surface that allows plain back silicon carbide abrasive discs to be secured to magnetic platens. Provides 25-75 disc pulls depending on grit size, cycle time and force.

| Item     | Description                          |
|----------|--------------------------------------|
| 52-20008 | Magnetic System Fastening Discs, 8"  |
| 52-20010 | Magnetic System Fastening Discs, 10" |
| 52-20012 | Magnetic System Fastening Discs, 12" |

**Zirconia Alumina Disks (Pk/25)**

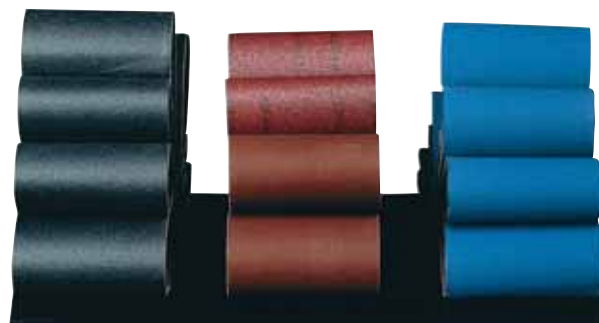
Zirconia Alumina provides rapid material removal and excellent wear resistance without generating excessive heat. Use Zirconia Alumina when grinding hard, ferrous metals and alloys on automatic or high speed manual grinding machines. All discs are adhesive backed.

| Grit | 8" (~200 mm) | 10" (~250 mm) | 12" (~300 mm) |
|------|--------------|---------------|---------------|
| 60   | 50-10045-Z   | 50-11045-Z    | 50-10215-Z    |
| 120  | 50-10050-Z   | 50-11050-Z    | 50-10220-Z    |

**4" x 36" Abrasive Belts (Pk/10)**

Durable cloth-backed abrasive belts for various grinding requirements. Use Silicon Carbide for general laboratory applications, Aluminum Oxide for ferrous metals and Zirconia Alumina for heavy stock removal.

| Grit | SiC      | Al <sub>2</sub> O <sub>3</sub> | ZrAl       |
|------|----------|--------------------------------|------------|
| 60   | 50-10415 | -                              | 50-10420-Z |
| 80   | 50-10420 | 50-10460                       | 50-10425-Z |
| 120  | 50-10425 | 50-10470                       | 50-10435-Z |
| 180  | 50-10430 | 50-10475                       | -          |
| 240  | 50-10435 | 50-10480                       | -          |

**Grinding Stones**

Use Al<sub>2</sub>O<sub>3</sub> for grinding ferrous metals and alloys. Silicon Carbide is recommended for grinding non-ferrous metals such as Titanium and Aluminum or when mixing non-ferrous and ferrous metals. Dimensions listed are diameter x thickness x arbor hole.

| Item     | Description                                      |
|----------|--------------------------------------------------|
| 81-10900 | Aluminum Oxide, 150 Grit, 14" x 1 3/4" x 1 1/2"  |
| 81-10905 | Silicon Carbide, 150 Grit, 14" x 1 3/4" x 1 1/2" |
| 81-10920 | Aluminum Oxide, 150 Grit, 8" x 2" x 1 1/4"       |

