KGS DIAMOND GROUP of Switzerland is the world leader in flexible diamond abrasive tools for virtually every industrial use. Innovation, high quality and exceptional value for customers are the guiding principals behind every KGS product. Today, the KGS team based in Viana do Castelo, Portugal, produce a complete range of premium abrasive flap discs that continue the KGS traditions of innovation and value for customers. These premium abrasive flap discs are meeting the expectations of the world’s most demanding customers.

| Usage reference guide: |

<table>
<thead>
<tr>
<th>GRINDING</th>
<th>FINISHING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grit</td>
<td>24</td>
</tr>
<tr>
<td>HEAVY STOCK REMOVAL</td>
<td>EDGE BEVELING</td>
</tr>
</tbody>
</table>
KGS offers complete, premium solutions for all types of work. A selected and tested range of the best abrasive cloths in the market, from standard Zirconium or Aluminium Oxide to incredible Diamond flaps in various price ranges to be sure that you have the right tool for the job.

Select an abrasive cloth, a price range and review all the available options for each disc.

### Cloth Options:

<table>
<thead>
<tr>
<th>KGS Premium Solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Aluminum Oxide</strong></td>
</tr>
<tr>
<td><strong>Solutions</strong></td>
</tr>
<tr>
<td>• Soft metals</td>
</tr>
<tr>
<td>• Ferrous and nonferrous metals</td>
</tr>
<tr>
<td><strong>Zirconium</strong></td>
</tr>
<tr>
<td><strong>Solutions</strong></td>
</tr>
<tr>
<td>• Hard and tougher metals</td>
</tr>
<tr>
<td>• Ferrous and nonferrous metals</td>
</tr>
<tr>
<td><strong>Silicon Carbide</strong></td>
</tr>
<tr>
<td>• Glass/ Stone</td>
</tr>
<tr>
<td><strong>Hybrid solutions</strong></td>
</tr>
<tr>
<td>• General purpose solution</td>
</tr>
<tr>
<td>• Broad range of metals</td>
</tr>
<tr>
<td><strong>Diamond solutions</strong></td>
</tr>
<tr>
<td>• Glass, Stone, Ceramics</td>
</tr>
<tr>
<td>• Composites, hard metals</td>
</tr>
</tbody>
</table>

### Price range:

<table>
<thead>
<tr>
<th>KGS Premium Solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Economical Solutions</strong></td>
</tr>
<tr>
<td>• Good performance</td>
</tr>
<tr>
<td>• Economical price abrasive cloth</td>
</tr>
<tr>
<td>• Low (LD), standard (SD) or high (HD) density of flaps</td>
</tr>
<tr>
<td><strong>Professional Solutions</strong></td>
</tr>
<tr>
<td>• Above average performance</td>
</tr>
<tr>
<td>• Standard price abrasive cloth</td>
</tr>
<tr>
<td>• Standard (SD) or high (HD) density of flaps</td>
</tr>
<tr>
<td><strong>Industrial Solutions</strong></td>
</tr>
<tr>
<td>• The ultimate in high performance and long life</td>
</tr>
<tr>
<td>• Standard (SD) or high (HD) density of flaps</td>
</tr>
</tbody>
</table>
ALUMINUM OXIDE LINE

METAL

AE Economical Solution

Economical abrasive cloth with low, standard or high flap density. For general use on all kinds of metal application.

Application
To be used on all types of iron, stainless steel or aluminum. Good results at an excellent price.

AP Professional Solution

Professional abrasive cloth with standard or high flap density.

Application
To be used on all types of iron, stainless steel or aluminum. Good results at an excellent price.

AI Industrial Solution

High quality ceramic abrasive cloth with standard or high flap density.


Application
Very good results, mainly on hard metal and non-ferrous metal. Lasts 50% – 200% longer than any flap discs on stainless steel, cobalt, chrome, Inconel, titanium and other hard-to-grind materials.
Available in:

**Grits**
40, 60, 80, 120.

**Cloth backing**
- Light Cotton
- Polycotton

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**FG**
- Ø115 mm: 13,300 rpm
- Ø127 mm: 12,000 rpm
- Ø180 mm: 8,500 rpm

**PLS**
- Ø115 mm: 13,300 rpm
- Ø127 mm: 12,000 rpm
- Ø180 mm: 8,500 rpm

**M14**
- Ø115 mm: 13,300 rpm
- Ø127 mm: 12,000 rpm

**Recommended Max speed:**
- Ø 115mm: 13,300 rpm
- Ø 127mm: 12,000 rpm
- Ø 180mm: 8,500 rpm

**Other sizes available on request.**

**10 Discs per box.**
- Standard white box.
- Private label possible.
**ZE Economical Solution**

Economical abrasive cloth with low, standard or high flap density. For general use on all types of applications.

**Application**
To be used on all types of iron, stainless steel, aluminum. Good results at an excellent price.

**ZP Professional Solution**

Professional abrasive cloth with standard or high flap density.

**Application**
To be used on all types of iron, stainless steel, aluminum. Professional results at an excellent price.

**ZI Industrial Solution**

High quality abrasive cloth at a competitive price with standard or high flap density. Aggressive cut and long life. Up to 30% longer life than competitive zirconia alumina products. Improved durability. Resists loading on aluminum. High strength, lightweight, absorbs vibration.

**Application**
Very good final result and easy to use. The best value.
Grits
40, 60, 80, 120.

Cloth backing
Light Cotton

Available in:

**FG**
- Grits
  - 40, 60, 80, 120.
- Cloth backing
  - Light Cotton

**PLS**
- Grits
  - 40, 60, 80, 120.
- Cloth backing
  - Light Cotton

**M14**
- Grits
  - 40, 60, 80, 120.
- Cloth backing
  - Polycotton

Recommended Max speed:
- Ø 115mm 13.300 rpm
- Ø 127mm 12.000 rpm
- Ø 180mm 8.500 rpm

10 Discs per box.
Standard white box.
Private label possible.

Other sizes available on request.
GLASS STONE

SP/S Professional Solution
Silicon carbide for stone.

Application
Excellent for finishing all types of natural and synthetic stone (marble, granite, composites, etc).
Very good finishing quality.

SP/G Professional Solution
Silicon carbide for glass.

Application
Excellent abrasive cloth for glass edging. Based on requests from our customers in the glass market, KGS developed a softer acting 165mm disc, with a higher number of flaps than our standard tools.
Grits
60, 80, 120, 220, 320.

Cloth backing
Cotton

Grits
60, 80, 120, 220, 320.

Cloth backing
Cotton

Available in:

**PLS**

- Flat
- Flat Back
- Angled Flaps

**SD - Standard**

**HD - High Density**

- Recommended Max speed:
  - Ø 115mm 13.300 rpm
  - Ø 165mm 8.500 rpm
  - Ø 180mm 8.500 rpm
- 10 Discs per box.
- Standard white box.
- Private label possible.

Other sizes available on request.
HYBRID SPECIAL LINE

HYBRID E Economical Solution

Zirconium flaps alternated with Aluminum Oxide flaps. Better performance than an 100% Zirconium disc.

Application
Long life
Easy to use with high material removal rate. Consistent performance. Can be used on a broad range of materials.

Hybrid I Industrial Solution

Zirconium flaps alternated with Ceramic flaps. Better performance than an 100% Zirconium disc.

Application
Very fast work and high material removal on hard steel or welds. Consistent performance. Can be used on a broad range of materials.

Swiss Diamond Technology
Grits
Coarse
Medium
Fine

Cloth backing
Cotton

Recommended
Max speed:
Ø 115mm 13,300 rpm
Ø 127mm 12,000 rpm
Ø 180mm 8,500 rpm

10 Discs per box.
Standard white box.
Private label possible.

Other sizes available on request.

10 Discs per box.
Standard white box.
Private label possible.

Other sizes available on request.

Grits
Coarse
Medium
Fine

Cloth backing
Light Cotton/ Polycotton

Recommended
Max speed:
Ø 115mm 13,300 rpm
Ø 127mm 12,000 rpm
Ø 180mm 8,500 rpm

10 Discs per box.
Standard white box.
Private label possible.

Other sizes available under consult.

Other sizes available under consult.

LD
SD
HD

PLS

Flat
Flat Back
Angled Flaps

LD
SD
HD

M14

Flat

LD
SD
HD

PLS

Flat
Flat Back
Angled Flaps

LD
SD
HD

M14

Flat

Ø115 Ø165 Ø180

Ø115 Ø165 Ø180

Ø115 Ø127
DIAMOND SPECIAL LINE
STONE & GENERAL USE

**Hybrid R Professional Solution**
Diamond flap alternated with silicon carbide flap. Excellent for hard materials, mainly for all kind of stones, glass, ceramics and composites. Aggressive disc for the fastest grinding and polishing in the market today.

**Application**
- Exceptional long life
- Very fast work and high material removal rates.
- Can be used on a broad range of materials
- Top tool for the best value.

**Hybrid T Industrial Solution**
Diamond flaps alternated with silicon carbide flaps. For wet & dry use. For grinding granite, composites, marble, limestone and sandstone.

**Application**
- Very fast work
- Long life
- Easy and comfortable to use, vibration free!
Grits
Coarse
Medium
Fine

Recommended speed:
Ø 115mm
6000 to 6500 rpm

M14
Ø 115
Flat

1 Disc per box.
KGS box.
Other sizes available on request.

Grits
60, 120,
200, 400.

PLS
Ø 115
Flat

Recommended speed:
Ø 115mm
6000 to 6500 rpm

1 Disc per box.
KGS box.
Other sizes available on request.
Your job is demanding and your business is unique, so KGS offers a 4 step customizing solution for your product. Choose the disc backer, and all other disc parameters, right up to labelling and packaging options. Custom solutions are guaranteed to make your work easier. Please contact our commercial department for any other possible options.
**PRODUCT SELECTION**

**4 STEPS**

**Step 1 - Choose the backer**

- **Fiber Glass FG**
  - $\varnothing 115$, $\varnothing 127$, $\varnothing 180$
  - Flat, Flat Back, Angled Flaps, Angled/Conic

- **Plastic PLS**
  - $\varnothing 115$, $\varnothing 127$, $\varnothing 180$
  - Flat, Flat Back, Angled Flaps

- **Plastic M14**
  - $\varnothing 115$, $\varnothing 127$
  - Flat

**Step 2 - Choose the format**

- **LD - Low Density**
- **SD - Standard**
- **HD - High Density**

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### Table of Flap Size and Grit

<table>
<thead>
<tr>
<th>Number of Flaps per Format</th>
<th>Ø115</th>
<th>Ø127</th>
<th>Ø180</th>
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<tr>
<td>Grit 40 55 72 100</td>
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<td>Grit 60 60 75 110</td>
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<tr>
<td>Grit 80 65 82 120</td>
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<tr>
<td>Grit 100 72 86 125</td>
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<td></td>
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</tr>
<tr>
<td>Grit 120 70 90 130</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Flap Size</th>
<th>Ø115</th>
<th>Ø127</th>
<th>Ø180</th>
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<tr>
<td>Length (mm)</td>
<td>18</td>
<td>19</td>
<td>23</td>
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Swiss Diamond Technology
### Usage Guide

<table>
<thead>
<tr>
<th>Cloth</th>
<th>Abrasive</th>
<th>Usage Guide</th>
<th>Metal</th>
<th>Steel</th>
<th>Steel for tools</th>
<th>Stainless steel</th>
<th>Hard stainless steel</th>
<th>Aluminum</th>
<th>Brass</th>
<th>Plastic</th>
<th>Acrylic</th>
<th>Wood</th>
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<tr>
<td>ZP</td>
<td>Zirconium - Pro</td>
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<tr>
<td>ZE</td>
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<td>●</td>
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<tr>
<td>Hybrid E</td>
<td>Zirconium/ Al. Oxide - Eco</td>
<td>●</td>
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<td>●</td>
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<tr>
<td>Hybrid I</td>
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<td>●</td>
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<td>○</td>
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</tr>
</tbody>
</table>

- ● Main purpose
- ○ Also possible

### Step 3 - Choose the cloth

- **Z**: Zirconium
  - ZI: Zirconium - Ind
  - ZP: Zirconium - Pro
  - ZE: Zirconium - Eco
- **A**: Aluminum Oxide
  - AE: Aluminum Oxide - Ind
  - AP: Aluminum Oxide - Pro
  - AE: Aluminum Oxide - Eco
- **S**: Silicon Carbide
  - SP/S: Silicon Carbide - Pro
  - SP/G: Silicon Carbide - Pro
- **H**: Hybrid
  - Hybrid E & I
- **D**: Diamond
  - Hybrid T & R

### Step 4 - Choose a label

- **KGS label**
- **Cecrops label**
- **Neutral or personalized label.**
Safety
Basic usage safety indications

According to the EN 13743:2008 standard, the maximum velocity of use should never exceed 80 m/s. or the following RPM:

- Ø 115 mm: 13,300 RPM.
- Ø 125 mm 12,000 RPM.
- Ø 178 mm: 8,500 RPM.

Always use gloves, goggles and ear plugs either on wet or dry use for personal protection. Dust mask should also be used when working dry. Helmets and safety shoes are recommended.

<table>
<thead>
<tr>
<th>Cloth</th>
<th>Cloth material and range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>Disc diameter</td>
</tr>
<tr>
<td>Grit</td>
<td>Grit size</td>
</tr>
<tr>
<td>Density</td>
<td>Low (LD), standard (SD) or high (HD) number of flaps</td>
</tr>
<tr>
<td>Barcode</td>
<td></td>
</tr>
</tbody>
</table>

Usage Information
FG backer
Fiber glass is the standard and most current solution, provides an affordable option for even the toughest works. Available in flat or conic shape to support the abrasive cloth according to the final use.

PLS backer
Produced to be stronger and more resistant than a fiber glass backer, a plastic backer will insure a stable and durable use. Build for all types of use.

M14 backer
Along with the plastic backer capabilities, includes a specific self-cooling design to ensure low temperature while at work. Built in M14 connection for quick change.

Cloth Backing:
Cloth backing material is made either from cotton or polyester, or some combination of the two. Cotton backed materials are acceptable in most general purpose and some heavy duty applications. Polyester or cotton/polyester combination materials tend to be stronger, and as such, may yield longer life in heavy duty applications. Polyester backed materials also have the advantage of being water resistant, so can be used with water as a coolant.

From softer to stronger
light Cotton/ Polycotton/ Polyester

Delivery:
Due to the manufacturing process and quality trials, the quantity delivered can be up to 10% more or less than the original order quantity.

Minimum quantity order for the Diamond line is 30 units.
Minimum quantity order is set to 300 units for all other lines.
Other orders are possible under price adjustment; please contact one of our sales representatives for more information.

Allow 6 weeks for initial order of each product.
Allow 4 weeks for subsequent orders.
Delivery dates are confirmed upon order.

Storage:
The abrasive fabric discs are made of a non-toxic material and, therefore, its management or handling poses no risk.

The flap discs should be stored in a dry, well-ventilated area under the following conditions:
temperature: 18-22 °C
relative humidity: 45 to 60%

Custom-made dimensions and individual solutions on request
Images shown are provided for illustrative purposes only.