Conventional abrasives won’t stack up to macroreplicated “Bricks”

Trizact™ CF Belt Consistency

Because of the uniformity and depth of the “bricks” comprising the 3M™ Trizact™ CF belt, mineral particles are always present at the working surface, resulting in a consistent, predictable cut rate and finish—both beginning to end.

Trizact CF Belt Life

The thickness of the “bricks” consists of layers of mineral and grinding aid up to 4 times as much as conventional abrasives, each of the same grade. These extra potential to get the job done—resulting in 2–4 times more life over conventional belts and up to 10 times more life of other engineered or agglomerate belts. Plus, as the brick height diminishes, it serves as an indication of how much belt remains, preventing any guesswork about belt condition.

Trizact CF Belt Cut Rate

Because CF sustains its cut rate from beginning to end, operators usually do not have to substantially increase pressure to offset declining cut rates as they do with conventional abrasives.

Applications:

Use for dry finishing operations, blending, scratch refinement or final dimensional finishing of ferrous, non-ferrous, automated, unattended, off-hand equipment and portable belt tools.

Reduce Process Steps

The consistency with which Trizact CF belts refine surfaces, combined with their increased volume of mineral and grinding aid, can often consolidate or eliminate process steps. The macroreplicated bricks deliver the same great results part after part, which can also reduce the need for retouch.

Trizact CF Case Histories

**Product**

- 327DC (Low Pressure, easy breakdown)
- 347AC
- Grade A45
- Grade 80 followed by Grade A65 in the 347AC; greater than 4:1 abrasive belt life compared to a competitive conventional 3D engineered belt sequence and produced a finer, more consistent finish (Ra, Rz, S) than a competitive conventional 400 grit abrasive belt.
- 3M-patented Cubitron abrasive belt.

**Application**

- Cobalt chrome orthopedic Implants. Casting scale grade scratches and final dimensioning.
- Titanium turbine engine components. Refinement of coarse grade scratches, blending, final dimensioning, and ﬁ ni shing.
- Stainless steel turbine engine components. Removal of coarse grade scratches, blending, final dimensioning, and ﬁ ni shing.
- Stainless steel turbine engine components. Refinement of coarse grade scratches, blending, final dimensioning, and ﬁ ni shing.
- Stainless steel turbine engine components. Refinement of coarse grade scratches, blending, final dimensioning, and ﬁ ni shing.

**Results**

A300 performed better than 2:1 over 100 grit competitive conventional 3M Belt with Cubitron abrasive belts. Outlasted, by 2:1, a competitive 3D agglomerate engineered (engineered) belt sequence and produced a ﬁ ner, more consistent ﬁ nish (Ra, Rz, S) than a competitive conventional 400 grit abrasive belt.

Choose a Complete System

Using other 3M patented abrasive technologies. 3M™ Cubitron™ Abrasive Grain, Scotch-Brite™ Abrasives and 3M™ Trizact Abrasives for improved efficiency and competitiveness, including these new products.

**Product Use:**

- 3M MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, AND NO OTHER Claim, OR ANY IMPLIED WARRANTY ARISING OUT OF A COURSE OF DEALING, CUSTOM USAGE OF TRADE, COURSE CONSISTENT WITH THE PURCHASE OR ANY IMPLIED WARRANTY ARISING OUT OF A COURSE OF DEALING, CUSTOM USAGE OF TRADE, COURSE CONSISTENT WITH THE PURCHASE OR ANY IMPLIED WARRANTY ARISING OUT OF A COURSE OF DEALING, CUSTOM USAGE OF TRADE.

**Limitation of Liability:**

- Scotch-Brite Abrasive Wheels, Belts and Discs
- Whether deburring, blending, adding a radius or satin ﬁ nish or just cleaning, nothing beats Scotch-Brite products for easily achieving a quality ﬁ nish.
You have asked for 3M™ Trizact™ CF Abrasives to work on a variety of metals, equipment parameters, part shapes and conditions.

So we have expanded the CF family to include new low and high pressure options.

**Trizact CF 327DC**
- Low Pressure/Easy Breakdown
  - Use with:
    - Soft contact wheels
    - Rubber, cotton or foam contact wheels
    - Aluminum, zinc, brass and other softer metals
    - Select for applications that break down easily under low pressures to help prevent premature belt loading

**Trizact CF 337DC**
- Medium Pressure/Original CF
  - Use with:
    - Medium-hardness contact wheel (50-70 Shore A)
    - Rubber contact wheels
    - Select for applications that require consistent cut rate and removal part-after-part

**Trizact CF 347AC**
- High Pressure
  - Use with:
    - Hard contact wheels
    - 1:1 serration or serr-X pattern contact wheel
    - Harder metals: nickel alloys, titanium, and stainless steels

**Trizact CF 347AC**
- High Pressure
  - Use with:
    - Hard contact wheels
    - 1:1 serration or serr-X pattern contact wheel
    - Harder metals: nickel alloys, titanium, and stainless steels

---

You can afford not to try 3M™ Trizact™ CF Belts?

- Lowering your overall production costs (cost per part)
- Utilize 3M resources to help optimize your abrasive processes, grade sequences and improve overall productivity
- Reduce product variability in terms of (less rejects and less rework):
  - Consistent cut rate and removal part-after-part
  - Consistent finish part-after-part
- Large, precise 3D structures consisting up to 4 times the mineral and grinding aids compared to conventional abrasives — longer belt life, more parts per belt.

---

### 3M™ Trizact™ CF Abrasives “Brick” Advantage

- **Consistent cut rate and removal part-after-part**
- **Consistent finish part-after-part**
- **Large, precise 3D structures consisting up to 4 times the mineral and grinding aids compared to conventional abrasives — longer belt life, more parts per belt.**

---

### Product Specifications

<table>
<thead>
<tr>
<th>Available Grades</th>
<th>A300</th>
<th>A450</th>
<th>A650</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mineral</td>
<td>Al2O3</td>
<td>Al2O3</td>
<td>Al2O3</td>
</tr>
<tr>
<td>Width</td>
<td>1/2&quot; – 24&quot;</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Optimum Speeds**

- **Starting Points: Surface Feet Per Minute (SFPM)**
  - **Aluminum**: 6000 – 7200
  - **Zinc**: 6000 – 7200
  - **Brass**: 6000 – 7200
  - **Nickel Alloys**: 6000 – 8500
  - **Stainless Steel**: 6000 – 7200
  - **Carbon Steel**: 6000 – 7200
  - **Titanium**: 2500 – 3500

---

**Finishes Generated by Trizact™ Belts**

- **Surface Finish Measurements, Ra (in micro-inches)**
  - **Mineral Grade**: Al2O3
    - **Steel**: 10 – 15
    - **Stainless**: 10 – 15
    - **Brass**: 10 – 15
    - **Aluminum**: 15 – 18
    - **Titanium**: 25 – 30
  - **Mineral Grade**: Al2O3
    - **Steel**: 10 – 15
    - **Stainless**: 10 – 15
    - **Brass**: 10 – 15
    - **Aluminum**: 15 – 18
    - **Titanium**: 25 – 30

---

**Trizact CF Grade to FEPA Grade Conversion**

<table>
<thead>
<tr>
<th>20th Trizact Abrasive Grade (Al2O3)</th>
<th>60th (Fe2O3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A300</td>
<td>P80</td>
</tr>
<tr>
<td>A450</td>
<td>P120</td>
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<td>P180</td>
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<tr>
<td>A3</td>
<td>P900</td>
</tr>
<tr>
<td>A2</td>
<td>P980</td>
</tr>
</tbody>
</table>

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**Product Grades**

- **Al2O3**
  - **A300**: 10 – 15
  - **A450**: 15 – 18
  - **A650**: 25 – 30
- **Fe2O3**
  - **A300**: 10 – 15
  - **A450**: 15 – 18
  - **A650**: 25 – 30
You have asked for 3M™ Trizact™ CF Abrasives to work on a variety of metals, equipment parameters, part shapes and conditions. So we have expanded the CF family to include new low and high pressure options.

Trizact CF 337DC
Low Pressure/Easy Breakdown
Use with:
- Soft contact wheels (60 Shore A and Less)
- Rubber, cotton or foam contact wheels
- Aluminum, zinc, brass and other softer metals
- Soft metals can quickly load belts, reducing belt life.

Selecting an abrasive that breaks down easily under low pressure will help to avoid premature belt loading.

Trizact CF 347AC
High Pressure
Use with:
- Medium hardness contact wheel (50-70 Shore A)
- Rubber contact wheels
- Smooth face to gentle serrated contact wheel

337DC is a good starting point when not sure which product to choose. If the 337DC:
- glazes over, caps, or loads too easily, try 347AC
- is worn to the backing too quickly or if shelling is experienced, try 347AC

Can You Afford Not to Try 3M™ Trizact™ CF Belts?
- Lowering your overall production costs (cost per part)
- Utilize 3M resources to help optimize your abrasive processes, grade sequences and improve overall productivity

Reduce product variability in terms of (less rejects and less rework):
- Consistent cut rate and removal part-after-part
- Consistent finish part-after-part
- Large, precise 3D structures consisting up to 4 times the mineral and grinding aids compared to conventional abrasives — longer belt life, more parts per belt.

Trizact CF 337DC Standard Grades
A300, A160, A100, A65, A45

Trizact CF 347AC Standard Grades
A30, A45, A65

You asked, We delivered.
We delivered.
You asked.

- Lowering your overall production costs (cost per part)
- Utilize 3M resources to help optimize your abrasive processes, grade sequences and improve overall productivity
- Reduce product variability in terms of (less rejects and less rework):
  - Consistent cut rate and removal part-after-part
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- Large, precise 3D structures consisting up to 4 times the mineral and grinding aids compared to conventional abrasives — longer belt life, more parts per belt.

You have asked for 3M™ Trizact™ CF Abrasives to
work on a variety of metals, equipment parameters, part shapes and conditions.
So we have expanded the CF family to include new low and high pressure options.

Trizact CF 327DC
Low Pressure/Easy Breakdown
Use with:
- Soft contact wheels (60 Shore A and Less)
- Soft, coarse or fine contact wheels
- Smooth face contact wheels
- Black of belt applications
- Alumina, zinc, brass and other softer metals

- Metal contacts can quickly load belts, reducing belt life.

Selecting an abrasive that breaks down easily under low pressure will help to avoid premature belt loading

Trizact CF 337DC
Medium Pressure/Original CF
Use with:
- Medium-hardness contact wheel (50-70 Shore A)
- Rubber contact wheels
- Smooth face in general semi-hard contact wheel

337DC is a good starting point when not sure which product to choose. If you choose A30/C,
- glass, rubber, or lead is too easy, try 327DC.
- to ensure the backing too quickly or if nothing is experienced, try 347AC.

Trizact CF 347AC
High Pressure
Use with:
- Hard contact wheels (70 Shore A and Harder)
- Rubber contact wheels
- 1:1 serration or soft X pattern contact wheel

- Harder metals: nickel alloys, titanium, and stainless steels
- Portable belt filing tools using small diameter steel contact wheels
- Metal parts with jagged edges. Sharp edges can shear an abrasive product prematurely, choose 347AC with its more durable mineral and tougher backing

Can You Afford Not to Try 3M™ Trizact™ CF Belts?

- Lowering your overall production costs (cost per part)
- Utilize 3M resources to help optimize your abrasive processes, grade sequences and improve overall productivity
- Reduce product variability in terms of (less rejects and less rework):
  - Consistent cut rate and removal part-after-part
  - Consistent finish part-after-part
- Large, precise 3D structures consisting up to 4 times the mineral and grinding aids compared to conventional abrasives — longer belt life, more parts per belt.

3M™ Trizact™ CF Abrasives “Brick” Advantage

- Time
- Finish (micro-inches)

You asked.
We delivered.
Conventional abrasives won’t stack up to macroreplicated “Bricks”

**Trizact** CF Belt Consistency
Because of the uniformity and depth of the “bricks” comprising the 3M™ Trizact CF belt, mineral is always present at the working surface, resulting in a consistent, predictable cut rate and finish — from beginning to end.

**Trizact CF Belt Life**
The thickness of the “bricks” consists of layers of mineral and grinding aid up to 4 times as much as conventional aluminum oxide belts of the same grade. These extra potentials to get the job done means 2 — 4 times more life over conventional belts and twice the life of other engineered or agglomerate belts.

**Trizact CF Belt Cut Rate**
Because CF sustains its cut rate from beginning to end, operators usually do not have to substantially increase pressure to offset decaying cut rates as they do with conventional abrasives.

**Applications:**
Use for dry intermediate finishing, blending, scratch refinement or final dimensional of refractory, semi-automated, unaided, off-hand equipment and portable belt tools.

**Reduce Process Steps**
The consistency with which Trizact CF belts achieve a consistent, predictable cut rate and finish combined with their increased volume of mineral and grinding aid, can often consolidate or eliminate process steps. The macroreplicated bricks deliver the same great results part after part, which can also reduce the need for retain.

**Trizact CF Case Histories**

<table>
<thead>
<tr>
<th>Product</th>
<th>Application</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>3M Scotch-Brite™ Abrasive Grain — for intermediate and final scratch refinement, Trizact belts can last two to five times longer than conventional belts — and finish so precisely that operators can reduce grade sequences, which in turn can lower abrasive costs.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Scotch-Brite** Abrasive Wheels, Belts and Discs
Whether conditioning, blending, adding a radius or radius finish or just cleaning, nothing beats Scotch-Brite™ products for easily achieving a quality finish.

**Choose a Complete System**
Using other 3M patented abrasive technologies, 3M™ Cubitron Abrasive Grain, Scotch-Brite Abrasives and 3M™ Trizact Abrasives for improved efficiency and competitiveness, including these new products.

**Product Use:** All statements, technical information and recommendations contained in this document are based upon tests or experience that 3M believes are reliable. However, whatever factors beyond 3M’s control affect the environment; therefore, 3M cannot assure that the conditions under which the product is used and the time and environmental conditions in which the product is expected to perform. About these factors are unique to the user’s particular application. It is essential for the user to evaluate the product in their own facilities under actual conditions and to determine whether the product will meet their specifications. However, many factors beyond 3M’s control can affect the use and performance of a 3M product in a particular application, including the conditions under which the product is used and the time and environmental conditions in which the product is expected to perform. Should these factors be applicable, it is essential for the user to evaluate the 3M product to determine whether it is suitable for a particular purpose and to determine the conditions under which the product will meet the user’s specifications.

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**3M Cubitron Abrasive Grain** in one of the fastest-growing grain technologies available. Cubitron Abrasives are engineered to cut fast and last up to six times the life of standard grain belts. They are ideal for grinding, deburring, and rough and finishing applications. In an ideal mineral for grinding, deburring, and rough and finishing applications. In an ideal mineral for grinding, deburring, and rough and finishing applications. In an ideal mineral for grinding, deburring, and rough and finishing applications. In an ideal mineral for grinding, deburring, and rough and finishing applications.

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**Scotch-Brite Abrasive:** Abrasive Wheels, Belts and Discs
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**3M Cubitron Abrasive Grain** in one of the fastest-growing grain technologies available. Cubitron Abrasives are engineered to cut fast and last up to six times the life of standard grain belts. They are ideal for grinding, deburring, and rough and finishing applications. In an ideal mineral for grinding, deburring, and rough and finishing applications. In an ideal mineral for grinding, deburring, and rough and finishing applications. In an ideal mineral for grinding, deburring, and rough and finishing applications. In an ideal mineral for grinding, deburring, and rough and finishing applications.

**Cubitron Abrasive Grain:** — for intermediate and final scratch refinement. Trizact belts can last two to five times longer than conventional belts — and finish so precisely that operators can reduce grade sequences, which in turn can lower abrasive costs.

**Scotch-Brite Abrasive:** Abrasive Wheels, Belts and Discs
Whether blending, conditioning, adding a radius or radius finish or just cleaning, nothing beats Scotch-Brite™ products for easily achieving a quality finish.

**Choose a Complete System**
Using other 3M patented abrasive technologies, 3M™ Cubitron Abrasive Grain, Scotch-Brite Abrasives and 3M™ Trizact Abrasives for improved efficiency and competitiveness, including these new products.

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**Cubitron Abrasive Grain:** — for intermediate and final scratch refinement. Trizact belts can last two to five times longer than conventional belts — and finish so precisely that operators can reduce grade sequences, which in turn can lower abrasive costs.

**Scotch-Brite Abrasive:** Abrasive Wheels, Belts and Discs
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Trizact™ CF Belt Consistency

Because of the uniformity and depth of the “bricks” comprising the 3M™ Trizact™ CF belt, mineral abrasives are always present at the working surface, resulting in a consistent, predictable cut rate and finish— From beginning to end.

Trizact™ CF Belt Life

The thickness of the “bricks,” consists of layers of mineral and grinding aid, up to 4 times as much as conventional aluminum oxide belts of the same grade. That extra potential to get the job done is 2 – 4 times more life over conventional belts and up to 5 times the life of other engineered or agglomerated abrasives. Plus, as the brick height diminishes, it serves as an indicator of how much life remains, enabling a user to change belts before they do with conventional abrasives.

Applications:

Use dry intermediate finishing, blending, scratch refinement or final dimensional finishing of rotor, semi-automated, un- elevated, back-hand equipment and portable belt tools.

Reduce Process Steps

The consistency with which Trizact™ CF belts refine scratches, combined with their increased volume of mineral and grinding aid, extends and stabilizes consistency and elimination process steps. The macroreplicated bricks deliver the same great results part after part, which can also reduce the need for retwork.

Choose a Complete System

Using other 3M™ patented abrasive technologies: 3M™ Cubitron™ Abrasive Grain, Scotch-Brite™ Abrasives and 3M™ Trizact™ Abrasives for improved efficiency and competitiveness, including these new products.

Evolution of Abrasives

Now in High and Low Pressure Options!

3M™-Patented Cubitron™ Abrasive Grain is one of the hardest, longer-lasting minerals available. Cubitron™ Abrasives are engineered to cut fast and stand up to the abrasive forces and conditions present in heavy-duty grinding applications. It is ideal for grinding, deburring, descaling and rough machining operations.

Trizact™ Abrasive Belts — for intermittent and final scratch refinement. Trizact belts can last twice the time longer than conventional belts — and finish so precisely that operators can reduce grade sequences, which saves time and lowers abrasive and overall manufacturing costs.

Scotch-Brite™ Abrasive Wheels, Belts and Discs

Whether deburring, blending, adding a radius or satin finish or just cleaning, nothing beats Scotch-Brite™ products for easily achieving a quality finish.

Conventional abrasives won’t stack up to macroreplicated “Bricks”