Known for our vast selection of brush products, resourceful custom-design capabilities and exceptional customer service, Tanis Brush is an industry leader in brush manufacturing. Since 1987, our team has remained committed to providing our customers with total customer satisfaction throughout the entire customer buying experience.

Our ISO 9001:2008 and ISO 13485:2003 certifications bring excellence into our daily work environment and encourages us to persistently question and improve our processes, fostering a culture of quality and continuous improvement.

Our corporate campus includes more than 64,000 square feet of combined facility space, and utilizes the latest brush manufacturing technology with state-of-the-art automation equipment to ensure quality, consistency and value.

Our stock and standard brush offerings include abrasive, twisted, rotary, strip, stapled set, composite, power and utility product categories. We serve a global customer base including a wide range of OEMs, manufacturing operations, production processes and maintenance operations within a vast array of industries such as aerospace, agriculture, automotive, electronics, food processing, medical, metal fabrication, military, oil/gas, printing, utilities, warehouse and distribution and many more.

Tanis carries a large inventory of products, but we also specialize in custom-manufactured industrial brushes to meet the most unique applications. We offer short production quantities on semiautomatic machines or high volume production on highly automated state-of-the-art equipment to meet varying volume demands.

Call Tanis today for your brush solutions from the brush experts.

Terms of Purchase

Payment: Net 30 days credit to approved customers. Credit cards accepted.

Freight: Shipments F.O.B. Delafield, WI (FCA for international shipments)

Ordering: Minimum order is $100 net or subject to process and handling charge. Special brushes are quoted per order.

Discounts: Quantity pricing will be quoted separately.

Prices: All pricing subject to change without notice.

Tax: Orders subject to sales tax.

Availability: Items listed are normally carried in stock for prompt shipment. Items are subject to availability.

Returns: Returns will not be accepted without Return Goods Authorization issued from Tanis, Inc.

Return goods handling charges will be applied to product ordered in error or no longer needed by the customer:
- 10% with a replacement order of equal value.
- 25% without a replacement order.
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**REQUEST A QUOTE** ................................ 176
At Tanis, our brushes finish, clean, seal, move and apply in a variety of shapes and sizes across many industries. But our services go even farther than our standard products. In addition to a great range of brushes—and stemming from our passion for customer service and our commitment to innovation—is the heart of our company. The Custom Brush.
Using the latest technologies, newest materials and the best engineers, we make brushes to your specifications. These brushes can increase productivity, quality, throughput, uptime and overall efficiency of your processes. We have extensive experience on a diverse set of custom projects; from oversized and microsized, to industry specific colors, temperature performance, durability requirements and problem solving designs.

Contact us to see what our Engineering Team can do for you.
SIT Società Italiana Tecnospazzole S.p.A Partnership

Tanis has partnered with SIT Società Italiana Tecnospazzole S.p.A. to provide wire brush products for angle grinders, stationary tools and hand tools. SIT’s strong expertise in the manufacture of wire products delivers quality products that can handle your light to aggressive cleaning projects. Try SIT products for cleaning performance up to 4 times more than competitor’s standard products. (See pages 58-73 for safety and technical information.)

Thermo Strip Brushes

Made for temperature sensitive environments and using the latest in filament technology, our new Thermo Strip Brushes signal thermal changes. The brush is gray up to 115 degrees Fahrenheit, but if it is exposed to higher temperatures the bristle color changes to white. Use this brush as an added precaution to an already existing temperature monitoring system or as your primary indicator. (Contact us for more information at (262) 646-9000 or sales@tanisinc.com.)
CeramiX® Wide Face Wheel Brushes
With an oversized brush surface, the CeramiX® Wide Face Wheel Brush covers more area, faster. Use to increase reach and efficiency on large jobs. CeramiX® Brushes contain a 3M™ Company abrasive grain that provides enhanced cutting action 3 to 5 times greater than traditional abrasive brushes. (See page 30 for more information.)

CeramiX® Bore Brushes
The cross hole bore brush is designed for automated use to remove burrs from internal edges and finishing bores. CeramiX® Brushes are made with an innovative 3M™ abrasive grain. (See page 32 for more information.)

Antimicrobial Brushes
Our new antimicrobial cleaning brushes use an innovative filament that prevents mold, yeast and bacteria from living and growing on the brush. These brushes stay cleaner, fresher and last longer than brushes made with standard filaments. (See page 168 for more information.)

G Power Brush
The convenient, multi-functional goblet brush is now enhanced to work with power tools. Use on hard to reach jobs that need more attention. Works on wet or dry applications. (See page 158 for more information.)
Fill Material Terminology

Our industrial brushes are supplied with synthetic, abrasive nylon, natural and wire bristles. The bristles are the working action of the brush and deserve plenty of attention in designing your industrial brush tool. Bristle characteristics vary for each type of material. Bristles may be stiff or soft, thick or thin, repel or absorb water, chemical and/or heat resistant, flexible to a greater or lesser extent, and resistant to bending or abrasion. Another factor in determining bristle selection is the purpose the brush serves during use in the application. Bristles perform varying functions such as cleaning, sealing, guiding, applying pressure, wiping, cutting, abrading or polishing.

Other factors include brush density of the bristle. Brush density appearance can be affected by the bristle being made with a crimp or level (straight) characteristic. Crimped material has a wave in the bristle and provides a denser brush appearance. It produces a continuous and more even brush action. Crimp is measured by amplitude (depth of the crimp) and frequency (number of crimps per inch). Level or straight bristles provide a lesser brush density appearance. The bristle length or trim is exposed view and the working strength of the brush. The surface of the bristles is uniform and flat. Tanis Incorporated technical sales and engineering staff will provide assistance with your selection.

Synthetic Filaments

Nylon filament offers a combination of excellent bend recovery, abrasion resistance and chemical resistance. All nylons absorb water in wet conditions reducing the filament stiffness. Nylon has the highest heat deflection temperature, but is prone to oxidation embrittlement with long exposures to high temperatures. Nylon filaments are made with different characteristics, available in crimped or level (straight) fibers, several filament diameters and colors. Nylon filaments range from .003" to .090" diameters.

Nylon 6 is a quality filament that provides durability at a lower cost for several applications. Wet conditions reduce stiffness by 80%.

Nylon 6.6 is a high quality nylon filament that has improved wet and dry stiffness compared to Nylon 6. It has excellent bend recovery and abrasion resistance. Heat stabilizer additive makes this filament less prone to oxidation.

Nylon 6.12 is a superior grade, high quality nylon filament. This nylon offers excellent bend recovery and abrasion resistance. Low moisture absorption makes it an excellent filament choice for wet applications. This filament can be made in an “X” shape with high performance and excellent wear characteristics.

Quill is a hollow 6.12 filament. The filament is used in a variety of applications. This is commonly used in paint brushes and tape dispenser brushes.

Anti-Static Nylon filaments are able to dissipate an electric charge. Anti-static nylon eliminates the problems generated by static electricity in many applications by providing a rapid dissipation of static charge. Past conductive nylon materials had to be grounded in order to dissipate charges whereas antistatic materials inhibit the generation of static charges.

Polypropylene is a top quality and versatile filament for a wide variety of applications. It has excellent wet stiffness and flex fatigue resistance. It is inert to most solvents, oils and chemicals and is especially good at resisting strong acids and bases. Polypropylene has a good bend recovery, but susceptible to taking a set more easily than other synthetic materials.

Polypropylene has limited natural sunlight resistance which is greatly improved with a black colored filament. It can be made with different characteristics to improve solvent resistance and dry applications. It can be made in a triangular or “X” shape and made flagged or unflagged for improved surface contact and liquid retention. Polypropylene filaments are made with crimped or level (straight) fibers, several filament diameters, and colors. Polypropylene is available in .006” to .060” filament diameters. Shaped polypropylene is available in larger sizes.

Polyester is an economical substitute for nylon 6.6 or 6.12 in many applications. It has improved abrasion resistance compared to polypropylene, but not as good as nylon. Polyester has excellent bend recovery, solvent resistant oxidation resistance at high temperatures. It has good resistance to sunlight. Properties in wet or dry applications do not change significantly because it does not absorb much water. It is an ideal filament for many wet applications. Heat stabilizer additive makes filament less prone to oxidation. Polyester can be made in a “X” shape for improved liquid retention. Polyester filaments are made with crimped or level (straight) fibers, several filament diameters and colors. Polyester filaments range from .006” to .075” diameters.

PFA is filament made with Teflon® material. This filament is inert to most chemicals and is excellent material for high temperature applications for continuous use limit at 500º F. PFA is available in .020” and .035” filament diameters.
Abrasive Nylon Filaments

An abrasive filament that combines nylon and abrasive grit in a special formulation to deliver strength, stiffness when wet, durability and chemical resistance. The abrasive grit is uniformly dispersed throughout the filament. This is a unique filament because the sharp cutting edges of grit can be held firmly against any surface no matter what shape it is. As the brush moves against the surface, the cutting edges of the grit make good contact because the flexible filaments bend at various angles to fit the surface contour. Abrasive filaments are aggressive on the sides as well as the tips.

Abrasive filament is most often made with nylon 6.12 for use in wet or dry applications. Nylon 6 or 6.6 is suitable for dry applications and can be treated against thermal degradation. Filaments are available in a broad combination of grit sizes (600 grit to 46 grit), loading and diameters (.012” to .60”). Grit loadings range from 20% by weight of grit to 40%. Abrasive filaments are embedded with silicon carbide or aluminum oxide. Silicate is a fine abrasive filament with a .008” diameter and 1000 grit for micro-finishes.

CeramiX® Brushes contain 3M™ grain 321 that provides enhanced cutting action up to 3 to 5 times faster than traditional abrasive filaments. The mineral wears away in smaller pieces, consistently leaving more mineral in the filament to work on the part surface. Refer to page 17 for grit and filament diameter ranges.

Silicon Carbide is harder, sharper and more aggressive than aluminum oxide and is preferred for finishing ferrous metals. Refer to page 17 for grit and filament diameter ranges.

Silicate is a fine grade abrasive filament for fine finishing and cleaning. Refer to page 17 for grit and filament diameter ranges.

Natural Filaments

All natural fibers are dependable substitutions for applications where synthetic filaments are not suited. Our natural filament offering includes horse hair, goat hair, tampico and bristle (boar or hog hair) for industrial applications. Artist brushes use natural fibers including bristle, ox hair, sable and camel hair.

Horse Hair is produced from the mane or tail hair and each provide a different stiffness and texture. It is best known for its ability to polish without being abrasive while cleaning the surface. This natural fiber is excellent for picking up dust and fine powders. Horsehair can be mixed with other natural fiber, synthetic and wire materials for specific customer applications. Horsehair colors include brown, black, mixed grey, silver grey and white.

Goat Hair is a very fine, soft natural fiber either black or white in color. It is used for very short trim soft brushes. Goat hair has a blunt tip, but retains a large volume of fluid.

Tampico is a natural fiber produced from Agave plants in Mexico. It has exceptional water retention characteristics, excellent biodegradability, superior heat and chemical resistance. It has a soft to medium texture and will soften when it absorbs water. It is able to withstand high temperatures without melting, but will discolor.

Bristle is a natural fiber with very thick butts and split ends used primarily in brush applications to carry liquids. Bristle is also referred to as hog, pig or boar hair. Bristle is used mainly in paint and artist brushes or twisted-in wire brushes. It maintains shape and stiffness in use over a long period of time. Bristle comes in gray, black or white (natural) colors.

Wire Fill Materials

High Carbon Steel is hard drawn, high-tensile strength wire with excellent fatigue resistance and brush action. Brushes with a wire diameter from .004” to .006” are used for fine surface work. Available in .004” to .014” wire diameters.

Stainless Steel Type 302 and Type 304 are the two types of stainless steel most commonly used in brushes. Type 302 is nonmagnetic, extremely tough, ductile and is excellent for corrosion resistance. Type 304 is the most widely used stainless steel and is similar to Type 302. Type 302 and Type 304 become slightly magnetic when cold worked and have excellent fabrication and welding characteristics. Recommended where contamination or “after rust” is a problem such as brushed stainless steel and on ferrous metals. Available in .003” to .020” wire diameters.

Stainless Steel Type 316 maintains a higher tensile strength at elevated temperatures. It also offers superior corrosion resistance in chlorides and many other environments than Type 304. Best choice for highly contaminated applications. Available in .003” to .020” wire diameters.

Brass is a non-ferrous and softer wire compared to steel and stainless steel. It has a high conductivity effective for reducing heavy static in a concentrated area. Brass is corrosion resistant and an excellent choice for cleaning scratch susceptible surfaces. Available in .003” to .020” wire diameters.

Phosphorous Bronze is a non-ferrous wire with excellent corrosion resistance, good fatigue life and high electrical conductivity for reducing static in a concentrated area. Bronze is used for better corrosion resistance and greater strength than brass. Available in .003” to .020” wire diameters.
General Fiber Characteristics

Over the past 30 years, Tanis experience has led us to work with a variety of materials to meet our customer’s needs. This includes horse hair, pig bristle, goat hair, natural vegetable fibers, different grades of nylon, polypropylene, polyester and a variety of metal filaments. These filaments are available to produce the brush that best provides the results to your specific use or industry.

### General Fiber Characteristics

<table>
<thead>
<tr>
<th>CHARACTERISTICS</th>
<th>POLYPROPYLENE</th>
<th>NYLONS</th>
<th>POLYESTER</th>
<th>POLYSTYRENE</th>
<th>NATURAL VEGETABLE FIBERS</th>
<th>PET</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abrasion Resistance</td>
<td>Fair</td>
<td>Excellent</td>
<td>Good</td>
<td>Poor</td>
<td>Poor</td>
<td>Good</td>
</tr>
<tr>
<td>Flex Life</td>
<td>Excellent</td>
<td>Excellent</td>
<td>Good</td>
<td>Poor</td>
<td>Poor</td>
<td>Good</td>
</tr>
<tr>
<td>Bend Recovery</td>
<td>Good</td>
<td>Excellent</td>
<td>Excellent</td>
<td>Poor</td>
<td>Poor</td>
<td>Good</td>
</tr>
<tr>
<td>Resistance to Taking a Set</td>
<td>Fair</td>
<td>Good</td>
<td>Good</td>
<td>Excellent</td>
<td>Good</td>
<td>Good</td>
</tr>
<tr>
<td>General Solvent</td>
<td>Excellent</td>
<td>Excellent</td>
<td>Excellent</td>
<td>Poor</td>
<td>Good</td>
<td>Excellent</td>
</tr>
<tr>
<td>Flicking Action (Springiness)</td>
<td>Good</td>
<td>Excellent</td>
<td>Excellent</td>
<td>Excellent</td>
<td>Good</td>
<td>Excellent</td>
</tr>
<tr>
<td>Retention of Stiffness (in Water)</td>
<td>Excellent</td>
<td>Good-Poor</td>
<td>Excellent</td>
<td>Excellent</td>
<td>Good-Fair</td>
<td>Excellent</td>
</tr>
</tbody>
</table>

### Synthetic Fiber Properties

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>POLYPROPYLENE</th>
<th>6 NYLON</th>
<th>6.6 NYLON</th>
<th>6.12 NYLON</th>
<th>POLYESTER</th>
<th>POLYSTYRENE</th>
<th>TEFLOMN°</th>
<th>PEEK</th>
<th>PET</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tensile Strength (PSI) x 1000</td>
<td>50-55</td>
<td>50-65</td>
<td>45-50</td>
<td>40-45</td>
<td>30-45</td>
<td>15-20</td>
<td>15</td>
<td>19</td>
<td>50</td>
</tr>
<tr>
<td>Stiffness Modules (PSI) x 1000</td>
<td>740</td>
<td>480</td>
<td>520</td>
<td>480</td>
<td>445</td>
<td>500</td>
<td>150</td>
<td>1100</td>
<td>500</td>
</tr>
<tr>
<td>Water Absorption (%)</td>
<td>&lt; 0.01</td>
<td>9</td>
<td>9</td>
<td>3</td>
<td>0.50</td>
<td>&lt; 0.03</td>
<td>&lt;0.03</td>
<td>0.4</td>
<td>0.4</td>
</tr>
<tr>
<td>Softening Point (Fahrenheit)</td>
<td>212°</td>
<td>250°</td>
<td>280°</td>
<td>250°</td>
<td>240°</td>
<td>200°</td>
<td>500°</td>
<td>560°</td>
<td>260°</td>
</tr>
<tr>
<td>Melting Point (Fahrenheit)</td>
<td>320°</td>
<td>410°</td>
<td>495°</td>
<td>410°</td>
<td>430°</td>
<td>350°</td>
<td>590°</td>
<td>649°</td>
<td>450°</td>
</tr>
</tbody>
</table>

### Filaments

- **Polypropylene**
- **Polyester**
- **X-Shape Polyester**
- **Nylon**
- **Natural Vegetable Fibers**
FILAMENT MATTERS

Performance Brushes
Choosing the right filament is essential for optimal brush performance—whether it is enhancing the cleaning properties of the brush, eliminating surface scratching or solving a unique application challenge.

Chemical and Environmental Resistance

<table>
<thead>
<tr>
<th>RESISTANCE TO</th>
<th>POLYPROPYLENE</th>
<th>NYLON 6, 6.6, 6.12</th>
<th>POLYESTER</th>
<th>POLYSTYRENE</th>
<th>PET</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dilute Acids</td>
<td>Excellent</td>
<td>Good-Poor</td>
<td>Good</td>
<td>Good</td>
<td>Good</td>
</tr>
<tr>
<td>Dilute Alkalis</td>
<td>Excellent</td>
<td>Excellent</td>
<td>Good</td>
<td>Good</td>
<td>Good</td>
</tr>
<tr>
<td>Alcohols, Vegetable Oils</td>
<td>Excellent</td>
<td>Good</td>
<td>Excellent</td>
<td>Poor</td>
<td>Excellent</td>
</tr>
<tr>
<td>Gasoline, Petroleum Distillates</td>
<td>Good</td>
<td>Excellent</td>
<td>Excellent</td>
<td>Poor</td>
<td>Excellent</td>
</tr>
<tr>
<td>Turpentine</td>
<td>Good</td>
<td>Excellent</td>
<td>Excellent</td>
<td>Poor</td>
<td>Excellent</td>
</tr>
<tr>
<td>Benzinse, Aromatic Hydrocarbons</td>
<td>Fair-Good</td>
<td>Excellent</td>
<td>Excellent</td>
<td>Poor</td>
<td>Excellent</td>
</tr>
<tr>
<td>Acetone, Ketones</td>
<td>Excellent</td>
<td>Good</td>
<td>Excellent</td>
<td>Poor</td>
<td>Excellent</td>
</tr>
<tr>
<td>Ethyl Acetate, Esters</td>
<td>Good</td>
<td>Good-Excellent</td>
<td>Excellent</td>
<td>Poor</td>
<td>Excellent</td>
</tr>
<tr>
<td>Trichlorethylene, Chlorinated Hydrocarbons</td>
<td>Fair-Good</td>
<td>Good-Excellent</td>
<td>Good-Fair</td>
<td>Poor</td>
<td>Fair</td>
</tr>
<tr>
<td>Prolonged Exposure to Hot Water</td>
<td>Fair-Good</td>
<td>Good</td>
<td>Good-Fair</td>
<td>Good</td>
<td>Good</td>
</tr>
<tr>
<td>Resistance to Sunlight*</td>
<td>Fair</td>
<td>Fair</td>
<td>Good</td>
<td>Good</td>
<td>Good</td>
</tr>
</tbody>
</table>

*Black color greatly increases resistance to sunlight.
Disc Brushes

<table>
<thead>
<tr>
<th>TYPES</th>
<th>PATTERNS</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMPOSITE</td>
<td></td>
</tr>
<tr>
<td>SHELL MILL</td>
<td></td>
</tr>
<tr>
<td>MINI</td>
<td>TURBO</td>
</tr>
<tr>
<td></td>
<td>TUFTED</td>
</tr>
<tr>
<td></td>
<td>TEARDROP</td>
</tr>
<tr>
<td></td>
<td>DENSE</td>
</tr>
</tbody>
</table>

Wheel Brushes

<table>
<thead>
<tr>
<th>TYPES</th>
</tr>
</thead>
<tbody>
<tr>
<td>NARROW FACE</td>
</tr>
<tr>
<td>STEM MOUNT</td>
</tr>
<tr>
<td>WIDE FACE</td>
</tr>
</tbody>
</table>

FILAMENT OPTIONS

- CeramiX®
- Aluminum Oxide
- Silicon Carbide
- Alumina Silicate
- Diamond

To order a brush, visit www.tanisbrush.com/request-quote or call Customer Service at (262) 646-9000.