






BRASCO INTERNATIONAL, INC.

## RECOMMENDED MAINTENANCE

Thank you for your order with Brasco International, Inc. Enclosed are maintenance guidelines and cleaning recommendations to consider when caring for your shelter and accessories. Please review this manual in full before cleaning any Brasco products. These recommendations are based on standard industry practices and should be used as a guide only. Brasco encourages customers to do their own research into best cleaning practices for their specific product and its environment.

**With questions, please contact us:**

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## Tips of the Trade

Today's high quality painted and anodized architectural finishes are extremely durable, but even the best finish needs maintenance. A quick and easy clean will help minimize the effects of weathering and will remove dirt, soil, grime and other build-up detrimental to powder coating, anodized finishes, acrylic or polycarbonate panels. Depending on geographic location and environmental conditions, cleaning pattern and frequency will vary. A regular cleaning schedule is recommended soon after installation of the product.

In this manual, we've included the "best practices" in maintaining our shelters and their accessories. Brasco discourages the use of harmful chemicals and concentrations that may damage surfaces and the environment. We're not experts on cleaning and have relied on our raw material suppliers for much of the enclosed information. If you have any questions though, we'll do our best to guide you in the right direction. Feel free to contact us at (313) 393-0393 or [info@brasco.com](mailto:info@brasco.com).

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*Left: Metropolitan Transit Council's maintenance crew deals with it ALL. Shown here with Brasco's reverse barrel Slimline shelter featuring a complete mix of cleaning applications: a clear anodized aluminum finish, custom blue polycarbonate roof, acrylic front banner with logo and custom ceramic frit laminate glass walls.*

*Cleaning a shelter with such a mix of materials requires attention to detail and specific cleaning practices for different surfaces.*



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## **Powder Coated Surfaces**

Dirt and salts build up on outdoor metal furniture over time causing it to look dusty and grimy, so you must clean away the soil without damaging the powder coating.

### **Items You May Need**

- ☐ Water
- ☐ Lint-free rags
- ☐ Mild liquid soap
- ☐ Bucket
- ☐ Sponge

1. For light soil, flush surface with water using a soft cloth or moderate pressure washer (1500 psi or less).
2. For removing heavier dirt, prepare a bucket of soapy water by adding a few drops of mild liquid detergent to warm water. Don't add additional chemicals or cleaning products to the soapy water.
3. Use lint-free rags to wash the surface of your powder coat. Dip the rag in soapy water and wring out excess. Gently wipe the entire surface, remembering to wash underneath the furnishing and in all cracks and grooves. If your powder-coated furniture has glass nearby, avoid spraying the powder coat finish with the glass cleaner.
4. Rinse the surface thoroughly with cold water. A benefit of powder coating is its ability to resist rust caused by oxidation, so rinsing the furniture with cold water won't damage the finish.
5. For built-up residue on powder coated surfaces, you may need to repeat these steps and use a soft sponge to gently scrub away dirt.

### **Field Touch-Up**

It is almost a given that some damage will occur and touchup work will be required during or after installation. That said, powder coated surface damage can be easily repaired if the damage is slight such as a scratch or rub mark. Minor painted surface damage can be sanded prior to touchup painting with excellent results.

Temperatures should be no lower than 40°F for optimal paint adhesion. Avoid windy, rainy, or extremely high heat conditions as paint may dry inconsistently.

Touchup paint is supplied in small bottles with each order and is to be applied very sparingly:

1. Shake or stir paint well before applying.
2. If touching up a small scratch or abrasion, a Q-tip or fine brush is recommended to apply paint into the damaged area. More than one coat may be necessary for an even surface.
3. If applying to a medium to large area, apply spray paint at least 8 inches from the surface. If you are



*Brasco's Contour bench powder coated in White Aluminum. Moderate power washing is helpful when cleaning perforated metal surfaces to best clean between the holes.*

1. applying non-spray paint, a 2" wide foam brush is recommended.
2. Paint should be applied in a sweeping motion, horizontally or vertically (may vary depending upon affected area) for an even distribution.
3. Several coats may be needed. Each coat should be allowed to dry thoroughly before applying additional coats.
4. When finished, cover or protect area to allow paint to dry and prevent smudging.

### **Precautions**

1. Clean in the shade to avoid fast-drying streaks and unwanted fading.
2. Avoid scraping or rubbing powder coating with an abrasive cloth that could damage or remove the coating from the surface.
3. Never use ammonia, bleach or strong solvents such as thinners or solutions containing chlorinated hydrocarbons, esters or ketones.
4. Do not over-clean or excessively rub in one area.



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## Anodized Aluminum

Cleaning procedures for anodized aluminum should be initiated as soon as practical after completion of installation to remove construction soils and accumulated environmental soils and discolorations. Because surface soils may be light or heavy, several progressively stronger cleaning procedures may be employed depending of the severity and tenacity of the soil.

### Items You May Need

- ☐ Water
- ☐ Lint-free rags
- ☐ Mild liquid soap
- ☐ Bucket
- ☐ Sponge

### Cleaning Steps

1. Cleaning should start at the top of the shelter and proceed to the ground level in a continuous movement. For light soils, simply flush the surface with water using moderate pressure.
2. If soil is still present after drying, scrub surface with a soft brush or sponge with concurrent spraying of water.
3. If soils still adhere, then a mild detergent cleaner should be used with brushing or sponging, followed by rinsing with clean water. Washing should be done with uniform pressure, first horizontally then vertically.
4. If it is necessary to remove oil, wax, polish, or other similar materials, MEK or an equivalent solvent is recommended for clean up. Extreme care must be exercised when solvents of this type are used since they may damage organic sealants, gaskets and finishes. These solvents should never be used on anodic finishes protected by clear organic coatings unless the organic coating has deteriorated and should be removed.
5. Removing heavy surface soils may require the use of an abrasive cleaning pad. In this procedure the pad is thoroughly soaked with clean water or a mild detergent cleaner and the metal surface is hand scrubbed with uniform pressure. Scrubbing action should be in the direction of the metal grain. Scrubbing with a nylon-cleaning pad with a surface protectant material is also recommended for removing stubborn soils and stains. Rinse thoroughly with clean water to remove all residue.
6. Using power-cleaning tools may be necessary to remove unusually heavy soils from large areas including panels and column covers. When using such tools, the surface must be continually flushed with clean water or a mild detergent cleaning solution to provide lubrication and a medium for carrying away the dirt. After an area has been machine scrubbed, it must be rinsed with clean water and thoroughly scrubbed. Wipe dry to avoid leaving spots.

### Field Touch-Up

It is almost a given that some damage will occur and touchup work will be required during or after installation. Although anodized finishes can never be identically replicated to their original condition, damage can be repaired if the damage is slight such as a scratch or rub mark.

Temperatures should be no lower than 40°F for optimal paint adhesion. Avoid windy, rainy, or extremely high heat conditions as paint may dry inconsistently.

1. We do not recommend sanding anodized material that is going to be touched up. The anodized surface is aluminum oxide, which is generally harder than the sandpaper. Some rub marks on an anodized surface can be removed with a mild abrasive pad such as the Scotch-Brite pad prior to touch up.
2. Brasco has developed custom touch-up finishes to match both Clear Anodized and Dark Bronze Anodized. Touchup paint is supplied in small bottles with each order and is to be applied very sparingly. It is intended to cover small blemishes or to touchup exposed cut ends on fabricated parts. It is not intended for use on large areas of more than a few square inches.
3. The color will closely match the factory applied painted or anodized finish, however the finish is not as hard nor performance the same as the baked on finishes.
4. After cleaning the area to be touched up, wipe the area with denatured alcohol to remove any moisture or cleaning residue and apply the touchup paint.
5. Touchup paint is supplied in small bottles with each order and is to be applied very sparingly:
  - a) Shake or stir paint well before applying.
  - b) If touching up a small scratch or abrasion, a Q-tip or fine brush is recommended to apply paint into the damaged area. More than one coat may be necessary for an even surface.
  - c) If applying to a medium to large area, apply spray paint at least 8 inches from the surface. If you are applying non-spray paint, a 2" wide foam brush is recommended.
  - d) Paint should be applied in a sweeping motion, horizontally or vertically (may vary depending upon affected area) for an even distribution.
  - e) Several coats may be needed. Each coat should be allowed to dry thoroughly before applying additional coats. When finished, cover or protect area to allow paint to dry and prevent smudging.

### Precautions

1. Aggressive alkaline or acid cleaners must never be used. Strong cleaners should not be used on window glass and other components where it is possible for the cleaner to come in contact with the aluminum.
2. Avoid cleaning hot, sun-heated surfaces.
3. Do not over-clean or excessively rub in one area.



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## Polycarbonate and Acrylic Panels

Polycarbonate sheets are treated on one side for protection against UV damage. The UV-resistant surface treatment significantly improves long-term durability, but must be glazed outward or toward the light source to provide intended protection and warranty. Although highly durable, periodic cleaning with proper procedures and compatible cleaners is recommended to prolong the service life of polycarbonate glazing.

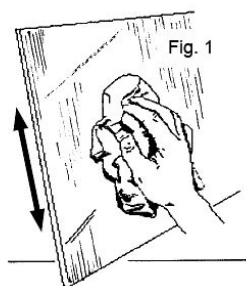
For general cleaning, it is recommended that the following instructions and cleaning agents be used. These procedures and cleaners are also recommended for use on the untreated, interior surface of the polycarbonate sheet, and for acrylic and APET plastics.

### Items You May Need

- ☐ Water
- ☐ Lint-free rags
- ☐ Mild liquid soap
- ☐ Bucket
- ☐ Sponge

### Cleaning Steps

1. Rinse polycarbonate sheet with lukewarm water.
2. Wash polycarbonate sheet with a mild soap and lukewarm water.
3. Use a soft cloth or sponge and gently wash with an up and down motion in the same direction as the flutes, as shown in Fig. 1.
4. Rinse the cloth or sponge and change the water often. DO NOT SCRUB or use brushes or squeegees. The coating on polycarbonate sheets is UV-resistant; IT IS NOT A MAR-RESISTANT COATING.
5. Repeat rinse and dry with a soft cloth to prevent water spotting.



*Gently wash with an up and down motion in the same direction as the flutes.*

### Cleaning agents found **COMPATIBLE** with polycarbonate sheets under laboratory conditions:

- Freon T.F.
- Joy
- Palmolive Liquid
- Top Job
- VM&P grade Naptha
- Windex with Ammonia
- Brilliantize®

### Cleaning agents found **INCOMPATIBLE** with polycarbonate sheets under laboratory conditions and should NOT BE USED:

- Lysol
- Pinesol
- Butyl Cellosolve
- Isopropanol
- Formula 409

Source: [www.polycarbonatestore.com](http://www.polycarbonatestore.com), 2014



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## Tempered & Laminate Glass

### Items You May Need

- ☐ Water
- ☐ Lint-free rags
- ☐ Mild liquid soap
- ☐ Bucket
- ☐ Sponge

Tempered glass offers a stronger glass that is designed to break into pieces with rounded edges rather than sharp edges. Tempered glass scratches easier than regular glass and should be cleaned gently with no abrasive cleaners.

Debris, dirt or dust that accumulation on glass can be damaging if not cleaned properly. It is recommended to establish a routine cleaning to prevent the build up of potentially harmful and damageable minerals on glass surfaces. Glass should be cleaned directly after installation, during construction periods and low participation periods.

### Recommendations

1. Use a soft cloth, sponge or a moderate pressure washer (1500 psi or less).
2. Apply mild heat to soften tough adhesive and promote removal. For removal of oils, greases, stickers, labels, etc., you may use of Isopropyl Alcohol, VM&P Naphtha or similar product.

**NOTE:** Strong cleaners should not be used on window glass and other components where it is possible for the cleaner to come in contact with the aluminum.

3. Thoroughly rinse surfaces with cold water and cloth dry to avoid spotting.

**NOTE:** If using a squeegee, avoid etched surfaces and graphics prints as it may be damaged.

### Precautions

1. Do not use abrasive cleaners and solvents.
2. Do not clean in direct sunlight or when surfaces are hot.
3. Do not use metal scrapers, razors or metal material to remove stains.
4. Strong cleaners should not be used on window glass and other components where it is possible for the cleaner to come in contact with the aluminum.

### Cleaning Steps

1. Before cleaning, thoroughly rinse panels to remove excess soil buildup.
2. Mix the dish soap with water in the spray bottle or bucket
3. Spray / apply the mixture onto the surface of the glass.
4. Allow it to set for a few minutes to penetrate any dirt and grime that may be present.
5. After a few minutes, use a sponge to remove the cleaner.
6. Buff with a soft cloth to restore the shine.



*Left: The Detroit based SMART (Suburban Mobility Authority for Regional Transportation) maintenance crew is diligent about cleaning their Eclipse shelters.*

*Their shelters have clear tempered glass on three sides as well as a glass windscreen on the front. The benefit of an all glass shelter is high visibility, safety and aesthetics, but if the walls are dirty, then all three are compromised.*



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## **HDPE (High-Density Polyethylene)**

Brasco utilizes HDPE for many of its benches and leaning rails because it's a minimal heat conductor, is more gentle than aluminum for seating, and is made from recycled plastics. HDPE is non-porous and resistant to most organic stains. HDPE is highly resistant (but not impervious) to fading; the color is solid, through and through so your site furnishing will not be affected by nicks and scratches.

### **Items You May Need**

- ☐ Water
- ☐ Lint-free rags
- ☐ Mild liquid soap
- ☐ Bucket
- ☐ Sponge / Soft Scrub

### **Cleaning Steps**

For regular cleaning mild dish soap and a damp cloth is all you need to keep your site furnishings looking clean and new. For greasy food residues, a mild abrasive, such as Soft Scrub and a non-scratching pad will do the trick.

### **Recommendations**

1. Before cleaning, thoroughly rinse surface to remove excess soil buildup.
2. Use a soft cloth, sponge or a moderate pressure washer (1500 psi or less) with mild detergent. Warm water will assist in removal of stickers and other greasy materials.
3. Thoroughly rinse surfaces with cold water and cloth dry.

### **Precautions**

1. Do not use abrasive cleaners and solvents.
2. Do not clean direct sunlight or when surfaces are hot.
3. Do not use metal scrapers, razors or metal material to remove stains.



*Brasco's LED Beam bench with black HDPE slats and powder coated White Aluminum support frame.*



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## **Rigid and Flexible Solar Panels**

Dirt and dust can accumulate on the surface of the solar panel over time, particularly during installation or low precipitations. This can cause a general decrease of power output and sedimentation on module from dirt accumulation. Normal rainfall should be sufficient to keep panels clean. Brasco International, Inc. recommends periodic cleaning of solar panels to ensure maximum power output, especially in regions with high quantities of dust in the air or during low precipitation.

Solar panels are generally self cleaning, but in particularly dry areas or where panel tilt is minimal, dust and other substances such as bird droppings can build up over time and impact on the amount electricity generated by a module. Grime and bird poop doesn't need to cover an entire panel to have an effect.

### **Items You May Need**

- ☐ Water
- ☐ Mild liquid soap
- ☐ Bucket
- ☐ Sponge / Soft brush on extendable pole or with a long handle
- ☐ Squeegee with plastic blade on one side, sponge or cloth on the other

### **Recommendations**

1. Clean your solar panels on an overcast day, early in the morning or in the evening. Early morning can be a particularly good time for cleaning as dew that has settled on the panels overnight will likely have softened grime; meaning you'll need to use less water and less energy to clean your solar panels.
2. If the panels are dry, before tackling the modules with water, brush off any loose materials first – this will make cleaning easier and faster.
3. If your water is hard (mineral-rich) and rainwater is available; use that as a final rinse; then squeegee dry. If hard water is all you have, just be sure to squeegee well as mineral-laden water can form deposits on glass as it dries.
4. If oily or greasy stains start appearing on your panels; isopropyl alcohol can be used as a spot-cleaning substance.

### **Precautions**

1. Don't use metal objects or harsh abrasive products for removing caked on materials – scratching the glass on a solar panel can affect its performance as scratches will cast shadows.
2. Avoid using detergents if possible as these may streak the glass of the panel. Use of abrasive powders also risks scratching the panels.



Top: 100 watt flexible solar panel on an arced acrylic Eclipse shelter roof.  
Bottom: 40 watt rigid solar panel on a standing seam Gable Slimline roof.

Source: [www.energymatters.com.au](http://www.energymatters.com.au), 2016



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