xNet™

GLASS SCRATCH REMOVAL SYSTEM

User Guide

GLASS POLISH®
Repair Renew Restore WORLD CLASS

DISCOVER THE POWER OF GLASNET™ & GLASX™ ABRASIVES

DEVELOPED AND USED BY GLASS POLISH TECHNICIANS

CONTENTS

ENGLISH

GLASS IDENTIFICATION

IMPORTANT: Although not essential it is very important and highly recommended that you identify the type glass you want to repair, this will ensure you are aware of the correct heat that can be applied during the repair process with accordance to the temperature chart.
If the glass type is not clear, and or an ASI "bug" is not printed in the corner of the glass, you can check with the manufacturer or local building codes.
If the glass cannot be identified this is not a problem but in such cases, we recommend ensuring the glass doesn't get hot during the scratch removal and polishing process, you should keep the temperature below 40 degrees Celsius, it should be warm but not too hot to touch with the back of your hand.
The following are the types of glass most commonly used today:

Laminated: Laminated glass is a type of safety glass that holds together when shattered. It is made up of two or more glass sheets bonded together with an inner layer of plastic (PVB) or resin.
In case of breakage, the interior layer holds the fragments in place.
Laminated glass is normally used when there is a possibility of human impact or where the glass could fall if shattered and also for architectural applications.
Skylight glazing and automobile windshields typically use laminated glass. In geographical areas requiring hurricane-resistant construction, laminated glass is often sed in exterior storefronts, curtain walls and windows.

Annealed: Annealed or float glass, a term which comes from the production method for this type of glass, it's perfectly flat, clear glass. When manufacturing this type of glass, the molten glass is "floated" onto a bed of molten tin. During the float glass process, the hot glass is gently cooled in the "annealing lehr," which releases any internal stresses from the glass to enable further processing. Ninety percent of glass is manufactured this way.

Tempered (Toughened): is a type of safety glass processed by controlled thermal or chemical treatments to increase its strength compared with normal glass.
This type of glass is two or more times stronger than annealed glass. When broken, it shatters into many small fragments that prevent major injuries.
As a result of its safety and strength, tempered glass is used in a variety of demanding applications, including passenger vehicle windows, shower doors, architectural glass doors and tables, refrigerator trays, mobile screen protectors, as a component of bulletproof glass, for diving masks, and various types of plates and cookware.

GLASS IDENTIFICATION

Chemically Tempered: Chemically tempered glass is covert by a chemical solution, which produces a higher mechanical resistance. This glass has similar properties to thermal-tempered glass. The product is not generally used for window glass, but more commonly seen in industries where thin, strong glass is needed.

Soft Coat: This type of glass is coated in a secondary process known as sputter coating, usually to offer solar control benefits. These types of coatings generally require some additional care in handling and fabrication and must be used within an insulating glass unit.

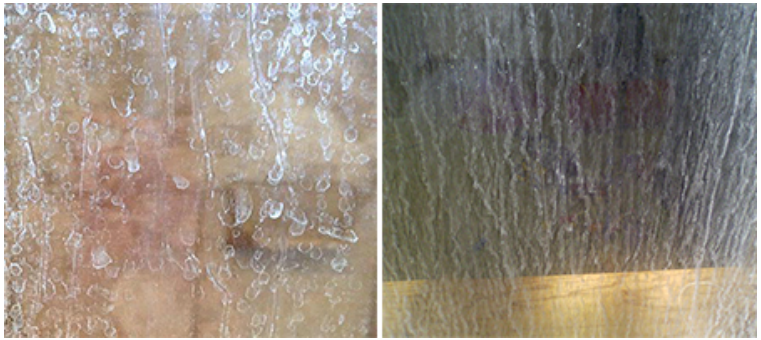
Hard Coat: A hard-coat or pyrolytic is coated during the manufacturing process at the molten glass stage. This type of coating offers a surface that is generally as durable as an ordinary glass surface, and therefore requires no special handling and, unlike soft coat, does not have to be used in an insulating unit.

Mirrored: Mirrored glass is made of glass with a smooth, polished surface that reflects images. Depositing a coating of metal, mostly silver, on the surface of clear or body-tinted glass, is how antique mirrors were made. A layer of copper, which is in turn pro

DAMAGE IDENTIFICATION

Damage identification can be tricky at times, but the more experience in encountering different type of damage the easier it becomes, the following is a general guide to help you understand the different types of damage in glass.

Limescale and Mineral Deposit Damage



Visual:

light mineral deposit marks in various shades, water spots or stripes that cannot be removed by an ordinary limescale remover, it is often the result of exposure to water or moister and lack of regular cleaning.

Repair Method:

This type of damage can be repaired by polishing the surface with our Glass Polishing Compound or in extreme cases with a 1 or 2 stage GlasX™ abrasive sanding process (GlasX™ 120 and GlasX™ 60).

Minor Scratches / Surface Marks / Wiper Blade Rub Damage

Visual:

Grey in colour and faint scratch marks, the kind which you cannot catch a fingernail in, it is often the result of faulty or dry wiper-blades, cleaning or rubbing as well as light sandpaper marks.

Repair Method:

This type of damage can be repaired by polishing the surface with our Glass Polishing Compound. Non-abrasive process is required.

DAMAGE IDENTIFICATION

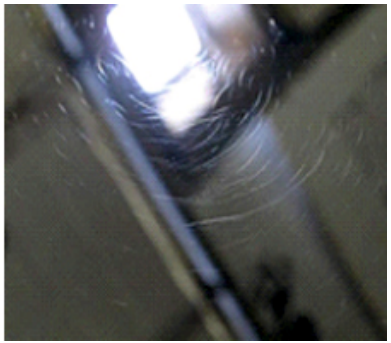
Medium / Deep Scratches

Visual:

Dark Grey or White colour the kind which you can catch your fingernail in but not enough to hang, it is often the result of hard blunt objects such as stone or razor blades.

Repair Method:

This type of damage can be repaired by using our 2 stage GlasX™ abrasive sanding process (GlasX™ 120 and GlasX™ 60).



Deep / Very Deep Scratches

Visual:

White in colour, very visible and chipped, the kind which you can catch your fingernail in and hang, it is often the result of moving heavy blunt objects over the glass, careless cleaning, vandalism or tool damage.

Repair Method:

This type of damage can be repaired by using our 3 stage GlasNet™ and GlasX™ abrasive sanding process. (GlasNet™ 200, GlasX™ 120 and GlaX™ 60).

DAMAGE IDENTIFICATION

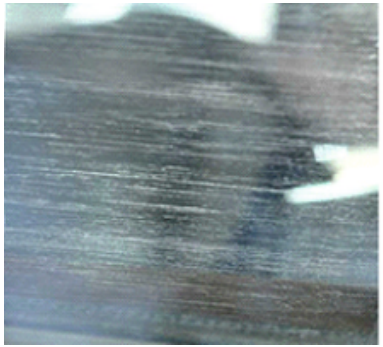
Sandpaper Scratches

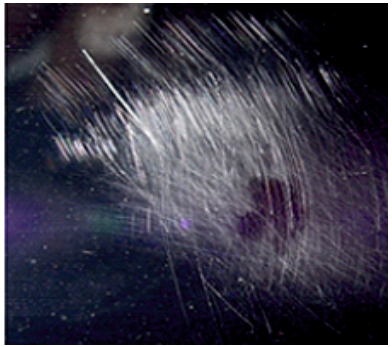
Visual:

Dark grey or white in colour, the kind which you can catch your fingernail in but not enough to hang, the severity of the damage depends on the grade of sandpaper used.

Repair Method:

This type of damage can be repaired by using our 2 or 3 stage GlasNet™ and GlasX™ abrasive sanding process. (GlasNet™ 200, GlasX™ 120 and GlasX™ 60).





Graffiti Scratch Damage

Visual:

White in colour, very visible and chipped, the kind which you can catch your fingernail in and hang, it is often the result of forcing a hard metal object such as a stone, screwdriver, knife, spark plug or a diamond glass cutter over the surface of the glass.

Repair Method:

This type of damage can be repaired by using our 2 or 3 stage GlasNet™ and GlasX™ abrasive sanding process. (GlasNet™ 200, GlasX™ 120 and GlasX™ 60).

DAMAGE IDENTIFICATION

Acid Etching Damage

Visual:

Like graffiti marks, acid etching on glass is caused by vandals using hydrofluoric acid etching cream applied over the surface of the glass.

Repair Method:

This type of damage can be repaired by using our 2 or 3 stage GlasNet™ and GlasX™ abrasive sanding process. (GlasNet™ 200, GlasX™ 120 and GlasX™ 60).

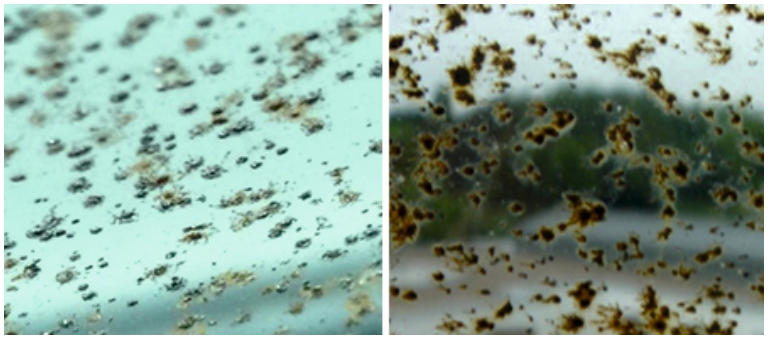
Grinder and Welder Splatter Damage

Visual:

Metal particles and burn marks in glass caused by using a Grinder or Welding near glass without protecting the glass, this is the most sever type of glass damage.

Repair Method:

This type of damage can be repaired by using our 3 stage GlasNet™ and GlasX™ abrasive sanding process. (GlasNet™ 200, GlasX™ 120 and GlasX™ 60).



GETTING STARTED

Before you start with an actual repair job, it is a good idea to practice a bit so you are familiar with our system. Use a scrap pane of glass and a stone or sandpaper to scratch the glass, then use our system as described below for few times to practice. We also highly recommend you watch the demo videos on our YouTube channel for a full demonstration with step by step instructions.

THE HEAT FACTOR:

Unless you are working on Tempered (Toughened) glass do not forget about the heat. Too much heat could crack normal Annealed (float) glass, especially when working close to edges. Use a laser thermometer or use your hand by placing the back of your hand against the glass. If the glass feels hot, stop and let it cool down before continuing.Please refer to the temperature guide for more information.

POLISHING DEVICE:

This system is designed for use with a rotary polishing machine with variable speed control. The recommend operating speed is 1500-2200 rpm.

Do not use Angle Grinders or DA (dual action) Polishers.

PREPARATION:

It is advisable to tape up the edges of frames and seals to protect them from getting dirty with the glass dust and compound splashes, it is not essential but will make it easier to clean up when finished.

EXISTING STRUCTURAL DAMAGE:

Check the glass for and any cracks or chips before attempting any repair. If the glass has any cracks or chips the repair work might cause the glass to crack further or break.

CLEANING:

Always make sure glass surface is clean, if it's not clean use a glass cleaner or water with a microfibre cloth or soft paper towel to clean the glass.

PERSONAL PROTECTIVE EQUIPMENT (PPE):

For your own health and safety, we highly recommend you always wear the provided safety glasses, ear protection and a dust mask when using our system.

TIPS FOR BEST RESULTS:

When you feel that the abrasive disc has stopped working, remove any build-up of glass dust, this is done by tapping the face of the abrasive disc to make the dust fall off. For faster polishing with the felt pad, stop periodically to scuff the pad with scissors or screwdriver and apply a small amount of water to the pad or glass. Remember that using too much water when polishing will dilute the compound and cause splashes making a mess, use a light mist from the spray bottle and no more.

When using the abrasive process do not to stop on the same spot every time you pass over the damaged area, the more times you pass the bigger your area should grow.

INSTRUCTIONS

STEP 1 - Backing Pad Assembly

Screw in the backing pad to the polisher and ensure it is attached tightly.

STEP 2 - Attach Abrasive Disc

Attach an abrasive disc to the backing pad, follow abrasive guide for the correct grade.

STEP 3 - Sanding Process - Damage Removal

With the polisher running at 1500-2200rpm apply the abrasive flat to the glass, directly to the damaged area. Starting with a little pressure move the polisher slowly from side to side over the treated area.

Tip! Professionals use 2200rpm but beginners sometimes find it easier on a lower speed. Move gradually over the area making sure you are properly overlapping by half the width of the pad each time, you should continuously increase the size of the working area until the damage is completely removed. When you feel that the abrasive disc has stopped working, remove any build-up of glass dust, this is done by tapping the face of the abrasive disc to make the dust fall off.

Tip! Changing abrasive discs after removing the build-up a few times will speed up the process and result in better sanding.

Warning! Too much heat could crack the glass. Unless you are working on toughened glass, check the glass temperature periodically, by placing the back of your hand against the glass. If the glass is hot, let it cool down before proceeding.

Disc Guide

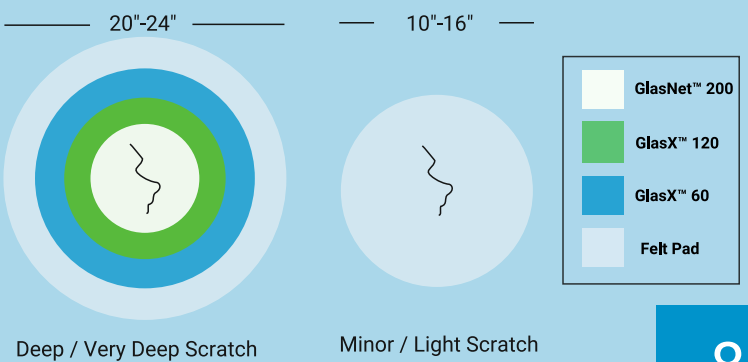
GlasNet™ 200
Very deep scratches, graffiti damage, grinder & welder Splatter damage.

GlasX™ 120
Medium or deep scratches, sandpaper damage, scuff marks and acid etching.

GlasX™ 60
Light scratches, surface marks and hard limescale mineral deposits.

GP-PRO Felt Pad
Final polishing stage, surface marks, hairline scratches, and light limescale.

General Feathering Guide



STEP 4 - Sanding Process - Surface Unification

Once all the damage is removed, we need to unify and smooth the area making it ready for the next stage, this is done moving over the surface gently, applying light pressure until the surface is unified, your working area should have a uniform clouded appearance, If you have heavier darker cloud or marks in some areas, repeat the process until it is removed.

Important!

If you started with the **GlasNet™ 200** continue to step **5** with **GlasX™ 120**

If you started with the **GlasX ™ 120** continue to step **6** with **GlasX ™ 60**

If you started with the **GlasX ™ 60** continue to step **7** with **Felt Pad**

Step 5 - Surface Renovation - GlasX™ 120

Attach GlasX ™ 120 green abrasive disc to the backing pad, with the polisher running at 1500-2200rpm apply the abrasive flat to the glass, directly to the treated area. Starting with a little pressure move the polisher slowly from side to side. Move gradually over the area making sure you are properly overlapping by half the width of the pad each time, you should gradually increase the size of the working area. Repeat this process 3-7 times or as required.

Tip! Professionals use 2200rpm but beginners sometimes find it easier on a lower speed.

When the abrasive marks caused by GlasNet™ 200 are removed move over the surface applying light pressure until the surface is unified, your working area should have a uniform light cloud appearance. If you have heavier darker cloud in some areas, repeat the process until it is removed.

Tip! When you feel that the abrasive disc has stopped working, remove any build-up of glass dust, this is done by tapping the face of the abrasive disc to make the dust fall off.

Tip! Changing abrasive discs after removing the build-up a few times will speed up the process and result in better sanding.

Warning! Too much heat could crack the glass. Unless you are working on toughened glass, check the glass temperature periodically, by placing the back of your hand against the glass. If the glass is hot, let it cool down before proceeding.

Step 6 - Pre-Polish Sanding - GlasX ™ 60

Attach GlasX ™ 60 blue abrasive disc to the backing pad, with the polisher running at 1500-2200rpm apply the abrasive flat to the glass, directly to the working area. Starting with a little pressure move the polisher slowly from side to side. Move gradually over the area making sure you are properly overlapping by half the width of the pad each time, you should gradually increase the size of the working area. Repeat this process 3-7 times or as required.

Tip! Professionals use 2200rpm but beginners sometimes find it easier on a lower speed. When the abrasive marks caused by GlasX ™ 120 are removed move over the surface applying light pressure until the surface is unified, your working area should have a uniform light cloud appearance. If you have heavier darker cloud in some areas, repeat the process until it is removed.

When you feel that the abrasive disc has stopped working, remove any build-up of glass dust, this is done by tapping the face of the abrasive disc to make the dust fall off.

Tip! Changing abrasive discs after removing the build-up a few times will speed up the process and result in better sanding.

Tip! Use this same process to remove hard limescale mineral deposits damage.

INSTRUCTIONS

Step 7 - Pre-Polish – Surface Cleaning and Inspection

Use water and the microfibre cloth or soft paper towel to clean the working area on the glass, check to make sure all damage has been removed, and also make sure sanding marks are uniform and looking consistent with GlasX ™ 60 abrasive marks before moving to the final polish step 8.

Tip! The more uniform and consistent the working area is, the less time required for polishing.

Step 8 - Final Polish - Assembly

Attach the velour felt polishing pad to the backing pad, the black velour side to the pad and the white side face exposed. Add half a tea spoon of glass polishing compound to the middle of the pad.

Tip! More compound can be added later, we recommend starting with a small amount eliminating unnecessary splatter.

Step 9 – Final Polish - Polishing

Hold pad flat on the glass and start the polisher. Keeping the pad flat against the glass, move slowly from left to right, up and down. Keep a firm even pressure glass as you move the pad over the glass.

Continue polishing until the slurry is dry, then with the spray bottle spray a mist on to the pad or directly on to the glass, make sure not to spray to much water as this will only make a mess and dilute the polishing compound.

Repeat the polishing process as many times as necessary until the glass is visually clear.

Tip! The edges of the working area take longer to polish, you should spend more time polishing them.

Warning! Remember to control the heat. If glass is too hot, let it cool down before proceeding. check the glass temperature periodically, by placing the back of your hand against the glass. If the glass is hot, let it cool down before proceeding.

Step 10 - Final Clean and Inspection

Wipe the surface clean and inspect carefully, the glass surface should now be crystal clear.

Tip! If you notice any light haziness or light sanding marks, repeat step 9 and check again.

Tip! If the haziness or sanding marks are not coming out with the final polish stage, that means you need to repeat steps 6-10 and check again.

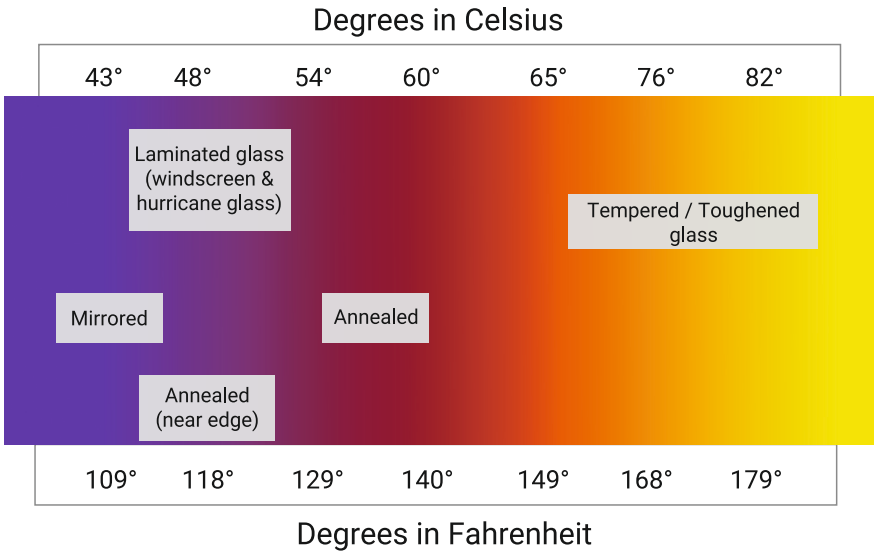
About the Surface Sealant

Surface sealant leaves a professional, easy-clean water repellant coating designed to make surfaces shiny and smooth. It protects from UV rays and is a water, dust and dirt repellent. This long-lasting coating is very easy to apply and safe to use on any type of glass, plastic and metal surfaces.

Directions:

1. Thoroughly wash/clean and dry surface before applying.
2. Shake well, apply small amount directly to clean, dry surface. If applying by hand a foam applicator pad, or clean soft microfibre cloth is recommended. If applying with a low speed polisher or an electric drill a rayon felt or foam polishing pad is required.
3. Buff in a circular motions until compound disappears into the surface and high gloss is visible.
4. As a final step spread a small amount of compound over the entire surface. This time do not buff but spread a thin coat and allow it to dry to haze (about 10 minutes). After the compound is dry clean off with cloth in a circular motions.

TEMPERATURE GUIDE



RE-ORDERING FORM

Code	Product description	QTY
12600	50mm Velcro Backing Pad M14x2	
12601	50mm Velcro Backing Pad 5/8"-11	
12605	75mm Velcro Backing Pad M14x2	
12606	75mm Velcro Backing Pad 5/8"-11	
12612	125mm Velcro Backing Pad M14x2	
12613	125mm Velcro Backing Pad 5/8"-11	
11006	50mm GP-PRO Felt Polishing Pad	
11007	75mm GP-PRO Felt Polishing Pad	
11008	125mm GP-PRO Felt Polishing Pad	
15005	Safety Glasses	
14056	500ml GP-PRO Glass Polishing Compound	
14114	500ml Surface Sealant / Easy Clean Coating	
98006	500ml Water Spray Bottle	
15020	Large Tool Bag	
15011	Half-Face Mask	
15111	Cotton filter pack	
15023	MK3 Glass scraper / straight	
15024	Stainless Steel Replacement Blades / 25pk	
81001	Flex L1503VR Rotary Polisher	
14202	50mm GlasX™60 / Blue	
14203	50mm GlasX™120 / Green	
14302	75mm GlasX™60 / Blue	
14303	75mm GlasX™120 / Green	
14304	75mm GlasNet™200 / White	
14502	125mm GlasX™60 / Blue	
14503	125mm GlasX™120 / Green	
14504	125mm GlasNet™200 / White	

Disclaimer This product is sold for professional use, it is sold with no warrantyand/or liability for any glass, fittings or fixtures and/or any personal injury. Although all products contained in the kit are non-toxic and safe to use, please keep this kit out of reach of small children.

Repair Renew Restore

WORLD CLASS

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