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Glasotan glass etching creme

Etching of picture glass sheets and mirror glass can be realised very successfully by means of the new "Glasotan glass etching cream". In industrial use, glass is etched partly also in relief, i.e. three-dimensional, using the very dangerous hydrofluoric acid. Using Glasotan glass etching cream, however, only the glass surface is given a mat finish by are relatively harmless product. This is completely sufficient for the desired optical effect.

Glasotan glass etching cream contains ammoniumhydrogendifluorid, a chemical, that mainly affects the silicate in the glass, giving the glass a milky-white mat finish. Due to the consistency of the cream (without drops) the mat finish will be very homogenous and even.

The product has been classified by the regulation on dangerous substances as "etching", so that **security measures** have to be adhered to:

Place a sheet of newspapaper on the working surface, so that spilled glass etching cream will not leak, or will be soaked of by the newspapaper. Glasotan is thixotrop in order to avoid undesired splashing, spilling, etc.

Ventilate the room/working rooms before and immediately after processing the material. Provide for sufficient fresh air especially in case of processing greater quantities (e.g. in workshops or school classes).

Wear protective clothes, gloves and glasses at work.

Processing instructions:

- 1. Draw an ornament, motif, etc. with a permanent stylus on a self-adhesive plastic tape (cover tape) and cut it out afterwards with a cutter knife.
- 2. Clean the glass surface by means of a glass cleaning agent. Please take care that you do not touch the glass surface with hands or fingers. Afterwards, place the glass or mirror glass on the paper pad.
- 3. Remove the paper layer from the cover tape and place the cover tape carefully on the glass surface that you want to etch. It is important to ensure that the tape is placed completely without folds on the glass and is then rubbed carefully and firmly on the glass by means of a folded cloth. Please ensure also that small, pointed tape parts are not taken off the glass but are carefully rubbed on it. You could also place the tape directly on the glass surface, rub firmly and then cut the precut areas in the tape and remove them carefully at the same time.
- 4. Apply the glass etching cream by means of a broad, soft brush on the glass. Cover also all uncovered glass surfaces that you want to etch. You must also proceed very carefully applying the glass etch cream, in order to avoid that tape edges are taken off the glass and glass etching cream passes under the tape.
- 5. Allow the Glasotan glass etching cream to react for ca. 5 minutes on the glass. Afterwards, remove excessive cream by means of a brush, putting the cream adhering to the brush back into the receptacle for recycling or clean and wash the complete surface under running water.
- 6. Afterwards, remove the tape from the glass. Now the etching on the mirror or glass sheet takes effect.

- 7. Instead of self-adhesive tape you can also apply a thin and even layer of Glasotan covering lacquer. After drying of the lacquer, draw a picture motif either directly on the lacquered surface or transfer it from an existing pattern by means of wax/grease tracing paper.
- 8. Afterwards, trace (cut up) by means of a pointed knife or special engraving stylus the contours of the motif and scratch out the picture area that you want to etch. This method is surely very time-consuming, but it offers the possibility to create unique and elaborate etching images.
- 9. Afterwards, apply an even layer of Glasotan glass etching cream by means of a soft brush on the scratched-out motifs and remove resp. wash it off afterwards. The covering lacquer is removed afterwards carefully by means of a soft cloth soaked in lacquer cleaning agent. Then the mat glass finishing process is finished.
- 10. A variety of pattern resp. pattern collections for glass etching are at your disposal.

Precaution and Security Measures:

Glasotan glass etching cream is toxious, corrosive and noxious for the health, especially if inhaled, ingested or touched by the skin. Therefore, close and store the closed bottle carefully after usage. Keep Glasotan glass etching cream out of reach of children. Wash off splashes on the skin or in the eyes carefully and intensively under running water and seek medical attention.

Disposal:

Let the empty bottle dry completely. Afterwards, it can be disposed of together with household garbage. Absorb spilled material with soaking material, newspapers, sand, saw dust, etc and let dry. Afterwards, dispose of with household garbage.

Important: Glasotan glass etching cream can nearly always be recycled. Therefore, put the used, excessive material back in the storing receptacle. The material loses its etching effect after several times of usage, but it can be activated afterwards. For this purpose, place a bottle filled with Glasotan glass etching cream into water and heat it for a short time up to 60° C. Afterwards, the glass etching cream is activated again and can be used again, but also in this state it loses its etching effect after several times of usage, because the etching chemical ingredients are consumed.

The content of this instruction corresponds to our current state of knowledge and is sufficient for general usage. However, we cannot control and do not know the working conditions of the user, so that the user is responsible for adhering to all necessary legal requirements. The product ingredients and characteristics stated by us describe the usage and security measures of our product. They are no guarantee of product properties.

Glasotan glass etching cream

Now etching of picture glass sheets and mirror glass can be effected successfully and securely by means of the new "Glasotan glass etching creme". While in industrial use glass is etched partly also in relief, i.e. three-dimensional, using the very hazardous hydrofluoric acid, the utiliation of Glasotan glass etching cream gives a mat finish to the glass surface with a relatively harmless product. However, this is completely sufficient for the desired optical effect.

Glasotan glass etching cream contains ammoniumhydrogendifluorid, a chemical that principally corrodes the silicate in the glass, giving a milky-white finish to the glass. Because the consistency is on purpose very creamy (drip-proof), the mat finish is homogenous and very even.

The product has been classified by the "regulation on dangerous substances" as corrosive, so that safety measures have to been adhered to while processing the product:

Put some sheets of newspaper on the working surface so that glass etching cream that has been unintentionally spilled does not leak. If this happens nevertheless, it will be soaked by the newspaper sheets. Glasotan is thixotropious so that unintentional splashing, leaking etc. will be mostly avoided.

Provide for a good ventilation in the room/working rooms before and immediately after processing the material. Especially in case of processing of greater quantities (e.g. in workshops or school classes) provide for sufficient fresh air.

Wear protective clothes, protective gloves and protective glasses while processing the good.

Processing instructions:

- 1. Draw an ornament, motif etc. with a permanent stylus on a self-adhesive plastic foil (covering foil) and cut it out afterwards by means of a cutter knife.
- 2. Clean the glass surface with glass cleanser. Please make sure that you don't touch the glass surface with your hands and fingers anymore. Put the glass or mirrorglass on the paper padding.
- 3. Remove the paper layer from the covering foil and place the covering foil carefuly on the glass surface that has to be etched. It is important the foil is placed completely without folds on the glass and is then carefully but firmly rubbed on the glass by means of a folded cloth. Please make sure that small

pointed foil parts shall not be taken off the glass but are rubbed carefully on it. Perhaps you can also place the foil directly on the glass surface, rubb firmly and then trim the precut surfaces in the sheet and remove them carefully at the same time.

- 4. Apply the glass etching cream by means of a broad, soft brush on the glass. Cover all free glass surfaces that have to be etched. You have also to proceed very carefully so that the foil edges are not taken off the glass and the glass etching cream leaks under the sheet.
- 5. Glasotan glass etching cream has to act on the glass for ca. 5 minutes. Remove excessive cream by means of a brush carefully. Put any cream that still adheres to the brush back into the receptacle so that you can recycle it. Or wash away and clean the complete surface by direct application under running water.
 - 6. Afterwards, the foil is removed from the glass. Thus, you can now see how the etching of the mirror or glass sheet produces a great effect.
- 7. Instead of self-adhesive foil the glass surface can also be covered by a thin and even layer of Glasotan finishing lacquer. After drying of the lacquer, draw a picture either directly on the lacquer surface or transfer it by means of tracing paper from an existing pattern.
- 8. Afterwards, trace (cut) the lacquer surface at the picture contours by means of a pointed knife or special engraving pen and scrape the picture that has to be etched. This method is surely very time-consuming, but offers the possibility to produce really very elaborate and artistically unique etching designs.
- 9. Just as referred to in the description for etching with foil, Glasotan glass etching cream is applied by means of a soft brush in an even layer on the scraped designs and removed resp. washed away afterwards. The covering lacquer is washed away afterwards by means of a soft cloth soaked in lacquer remover. Then the mat glass finish is done!
- 10. Various designs resp. design sets are available with different motifs.

Security measures:

Glasotan glass etching cream is toxious, corrosive and noxious for the health especially when inhaled, ingested or touched with the skin. Therefore, the bottle should be carefully closed after every use and be stored in a safe place. Keep out of reach of children. Splashes on the skin or eye shall be washed away carefully and intensively under running water. Seek medical attention.

Disposal

Let empty bottles dry completely. Afterwards, the bottle can be disposed off together with household waste. Absorb spilled material with liquid-absorbing material, e.g. newspaper sheets, sand, saw dust etc. and let dry, dispose off together with household garbage afterwards.

Important: Glasotan glass etching cream can nearly always be recycled. Therefore, you should put the used, excessive material always back in the receptacle. The material looses its etching effect after several utilisations, but it can be activated at the end nevertheless. To this end, the bottle filled with Glasotan glass etching cream is put into a receptacle with water and heated to 60° C for a short time. Afterwards, the glass etching cream can be used for new etchings completely activated, but it looses its etching effect also after several utilisations, because the etching chemicals will be used up then.

The content of this instructions of use correspond to our current state of knowledge and is sufficient for general utilisation. Nevertheless, the given working conditions of the user are not known to us, so that he is responsible for adhering to all necessary legal requirements. The product ingredients and properties described by us describe the utilisation and security measures of our product, but they are no guarantee of product characteristics.