CAR REFINISH SYSTEM

30 Years of Experience in Car Care
1. Sand the surface using sandpaper No. 120 in orbital motion.
2. Clean and wash the surface with Mido Cleanser or Mido Thinner.
3. Apply Mido Putty on the prepared surface.
4. Sand Unsaturated Polyester putty after complete drying using sandpaper No. 120 followed by 320.
5. Clean and wash the surface with Mido Cleanser or Mido Thinner.
7. Applying Mido Filler 2K.
8. Sand Mido Filler 2K.
   • If dry, (manually / mechanically) with sandpaper P360-P400.
   • If wet, (manually / mechanically) with sandpaper P800-P1000.
9. Clean the surface with Mido Cleanser.
11. Spray the surface after color matching using Mido Mix paint.
12. Polishing the surface with Gem Polishing products.
Mido Cleanser

**Description:**
Mido Cleanser is a group of special solvents which are used to clean, degrease, and remove dirt residues plus other contaminations that appear on bare metal surfaces, old paint coatings, surfacer and filler.

**Basic Raw Material:**
Special types of solvents.

**Technical Data:**
- **Color:** Colorless
- **Specific Gravity:** 0.8 ± 0.1 gm/cm³
- **Viscosity:** 12 ±1 sec. Ford Cup #4 at 20º C.

**Application:**
- Using a clean cloth wetted by "Mido Cleanser", mop the surface under treatment.
- After the cleanser evaporates, apply a coat on the surface.
- Suitable for metal surfaces, old paint coatings, surfacer and filler.
- Cleans, degreases and removes dirt residues.
- Prevents contaminations on bare metal surfaces, old coatings, surfacer and Filler.

**Packaging:**
1 Liter.
**Mido Mix Plasto Primer**

**Description:**
Plasto Primer is a fast drying, plastic adhesion primer which improves the adhesion of subsequently applied paint system on plastic car parts.

**Recommended Use:**
It’s suitable for use on all plastic and fiber car body parts.

**Ingredients:**
• Special resins – Solvent – Additives.

**Technical Information:**
• **Drying Time:** 10 - 15 min at 25° C.
• **Mixing Ratio:** Ready for use without any additions by spray gun ( nozzle = 1.4 mm & air pressure = 3 bar).

**Application Data:**
• Clean the surface well by using Mido Cleanser.

• Spray two coats of Plasto Primer without dilution. Allow 5 - 10 min. flash-off time between coats.
• Spray on acrylic, metallic or varnish coats after adding Elasto-Additive to them (no more than 10 % ).

**Shelf Life:**
• Two years from the date of production.

**Packaging:**
• 1 kg.
BODY FILLER

Description:
It is a two-component unsaturated polyester putty (UP putty + hardener), especially formulated to fill dents, repair irregularities (shallow surface defects), pinholes, sand scratches, hail damage or small dents in car body. It provides the best base in all paint systems. It is characterized by easy application and sanding, superior filling properties, and fast drying. It can be applied over bare steel and properly prepared old finishes. It has very short drying times and smooth knife application, easy to shape, does not drip from the knife, does not leave holes and can be quickly sanded thanks to its fine and balanced granular structure.

Components:
• Special types of unsaturated polyester resins.
• Additives (Antissettling – workability – storage stability).
• Special types of Fillers.
• Monomer solvent.
• Hardener (delivered as individual kit).

Note:
• For long-lasting anticorrosion protection over large surfaces, it is recommended to apply an epoxy primer before applying.
  • Complete drying appear after 24 hours of mixing.
  • The data are based on application in film thickness (600 - 1000 micron).
  • Apply in multiple thin layers (don't apply in a single thick layer), and wait for 20 min. between coats.

Technical Information:
Color: Red, Gray, White and Yellow.
Specific Gravity for:
  • Heavy Body Filler: $1.8 \pm 0.1 \text{ gm/cm}^3$
  • Light-Weight Body Filler: $1.25 \pm 0.1 \text{ gm/cm}^3$
Viscosity for:
  • Heavy Body Filler: $1,000,000 - 1,200,000 \text{ cp. at R.T.}$
  • Light-Weight Body Filler: $600,000 - 800,000 \text{ cp. at R.T.}$

Gel Time:

<table>
<thead>
<tr>
<th>Temperature</th>
<th>Time/Min.</th>
</tr>
</thead>
<tbody>
<tr>
<td>10° C</td>
<td>6</td>
</tr>
<tr>
<td>20° C</td>
<td>4.5</td>
</tr>
<tr>
<td>30° C</td>
<td>3.5</td>
</tr>
<tr>
<td>40° C</td>
<td>2</td>
</tr>
</tbody>
</table>
The Perfect Amount of Peroxide Hardener

Substrate and Surface Preparation:
It is suitable for iron sheets and car body. Prepare the surface by sanding it well with sandpaper No. 80 - 120. Then wash and clean it with Mido Cleanser or Mido Thinner to be ready for putty.

Note:
- Polyester putty can be applied on Eboxy filler and slow filler (with hardener). It can't be applied on Fast filler (with air drying) because it is so weak and cannot work with putty.

In case of treated steel, galvanized or Aluminum substrate, you must use Galvastuck first to improve adhesion with these substrate.

<table>
<thead>
<tr>
<th>Temperature</th>
<th>Surface Dry/min.</th>
<th>Complete Dry/hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>10°C</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>20°C</td>
<td>4.5</td>
<td>1.5</td>
</tr>
<tr>
<td>30°C</td>
<td>3.5</td>
<td>1</td>
</tr>
<tr>
<td>40°C</td>
<td>3</td>
<td>3/4</td>
</tr>
</tbody>
</table>
APPLICATION PROCEDURE:
Mixing:
Mix desired amount of UP putty on clean flat, non-porous surfaces such as glass, metal, or plastic tray. Use approximately 2 - 3 gm of cream hardener / 100 gm of putty. Mix thoroughly to get a uniform color using a plastic spreader or putty knife. Mix with firm pressure using smooth back and forth wiping motion.

Note:
• Mix only in small amounts that can be used on time according to gel time table.
• Do not add cream hardener in putty container.
• Do not add any solvent to the putty.

Application:
• Use a putty knife or flexible blade to spread a thin layer of the mixture on the prepared surface in one or more coats.
• Suggested thickness: 200 - 800 microns.
• Maximum thickness: 1000 microns.
• Employ enough pressure to assure maximum adhesion work up thickness and overlap edges of damaged area and to eliminate any air bubbles.
• Repeat this process until the patch is slightly higher than the surrounding metal to allow for sanding.

Apply filler by pressing down firmly on the repair area, skimming off excess residue and re-applying to ensure no air is trapped.
Note:
• Do not return unused mixed material back in the can or use a mixing tool to remove putty from can.
• In case of severe damage or deep hole, we can, use fiber putty due to it high filling power

Sanding:
Sand it by using coarse sand paper such as P80-P120 sandpaper and finer sandpaper (P220-P320 sandpaper). Best results are obtained by using a random orbital motion by hand or sanding machine. The putty is ready now to be coated with filler.

Storage & Packing:
• 1 kg – 2 kg – 3 kg – 4 kg – 5 kg.
• The product must be stored in dry space, provided with adequate dentilation at 25°C & 65% R.H.

Polyester Putty:
• New Stucko
• Autostuck
• Paraflex
• Pexin
• Top
• Euro Polyester
• Starmax putty
• Body Filler
• Starmax Fiberputty
• Galvastuck
MIDO Filler 2K

Description:
Mido Filler 2K 935 is 2K acrylic filler (filler + hardener) used in car refinishes system. It is flattable filler developed for use under acrylic paints. The filler gives quick drying, featuring excellent flow, fast drying, good filling and very good sanding properties. It is suitable for both wet and dry sanding. This product has excellent topcoat holdout.

Components:
- Special type of Acrylic resin.
- Additives.
- Special types of fillers.
- Solvent.
- Hardener (delivered as a separate kit).

Technical Information:
1- Finish: semi-gloss.
3- Viscosity: 15,000 - 18,000 cp @ 25°C.
4- Density: 1.7 ± 0.05 gm/cm3.

5- Mixing ratio: 25% Mido Mix Hardener (volume) and 15% (weight).
6- Coverage rate: 6 - 7 m2 per liter at a thickness of 60 micron.
7- Thinner: Proper thinner (Acrylic or Duco).

Drying Time:
Surface dry:
- 3 - 4 hour at 25°C
- 1/2 hour at 60°C (stoving).
Complete drying: 24 hours.
**Tinting:**
Filler 2K 935 can be tinted with maximum 5% of 2K acrylic paints because it may affect on physical properties.

**Surface preparation:**
- **New Surfaces:**
surface must be clean, dry, and free of dust and greases.
- **Old surfaces:**
Apply stuck putty on the part you want to repair and then sand it.

**Application procedure:**
- Stir the filler before use.
- Add 25% hardener by volume or 15% by weight, and then stir well.
- Add suitable thinner (if needed) to reach spraying viscosity and stir well, then spray 2 coats on prepared surface to reach film thickness (60 - 90 μ) and wait for 5 – 10 min. to flash off between coats depending on film thickness and dry condition.
- **Pressure:** 2 – 3 bars.
- **Spray gun Nozzle diameter:** 1.6 – 1.8 mm.
- Clean the gun thoroughly immediately after using 2K products.

**Sanding:**
- **Dry Sanding:** P320 - P400
- **Wet Sanding:** P800 - P1000

**Shelf Life:** Two years from the production date, provided the safety of packaging and following right storage conditions and temperature.

**Packaging:**
1 Liter.
Mido Mix A (Acrylic Coat)

Description:
It is a two-component acrylic paint for cars and industrial purposes. It is composed of special type of acrylic resin to obtain superior hardness and gloss. Mido Acrylic special pigment provides maximum weathering and scratching resistance as well as color retention.

Recommended use:
It is suitable for metal and vehicle surfaces which are painted using computer tinting system.

Technical Information:
- Coverage Rate: 7 – 8 m²/1 kg
- Available time for using after mixing: 2 hours at 20° C.
- Dilution: 30 % of high-quality acrylic MIDO thinner A1 or depending on the desired viscosity.

Mixing Ratio: (by weight)

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<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Mido Mix (Acrylic)</td>
<td>100 ml</td>
</tr>
<tr>
<td>Hardener</td>
<td>50 ml</td>
</tr>
<tr>
<td>Acrylic Thinner</td>
<td>30 ml</td>
</tr>
</tbody>
</table>

- Flash-off time:
  5 – 10 minutes between coats.
- Film thickness:
  25 – 30 micron for one coat.
Drying Time:

<table>
<thead>
<tr>
<th></th>
<th>At 20° C</th>
<th>At 60° C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drying Time</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dust Resistance</td>
<td>30 min.</td>
<td>5 min.</td>
</tr>
<tr>
<td>Surface Drying</td>
<td>3 hrs.</td>
<td>30 min.</td>
</tr>
<tr>
<td>Complete Drying</td>
<td>16 hrs.</td>
<td>45 min.</td>
</tr>
</tbody>
</table>

Application data:
- Surface must be clean by Mido Cleanser to be free of dust, grease and oil.
- Prepare the desired color with suitable quantity and mix it well with Mido Mix hardener and Mido Mix thinner.

Using Spray Gun Nozzle No.: 1.3 – 1.4 mm
Air Pressure: 2.5 – 3 bars.
Viscosity: 18 – 20 seconds by Ford Cup # 4 at 20° C

Coats: 2 coats (30 micron per coat).

Shelf life:
Two years from the date of production in proper conditions at 25° C.

Packaging:
1 liter - 3.75 liter.
Mido Mix B (Basecoat)

Description:
It is a high-quality paint, especially formulated to repaint private cars, vehicles, and equipments. It provides maximum weathering and scratching resistance as well as color retention and attractive metallic finish.

Recommended Use:
It’s suitable for metal and vehicle surfaces which are painted using computer tinting system.

Technical Information:
Coverage Rate: 7 – 9 m²/1 kg
Dilution: (80% - 90%) of Thinner Acrylic Mido Mix (High Quality), according to the required viscosity.
Flash-off Time:
5 minutes between coats.

Film Thickness:
15 – 25 micron for one coat.
Apply using spray gun with air pressure (2.5 - 3) bar and nozzle (1.3 - 1.4) mm.

Drying Time:

<table>
<thead>
<tr>
<th>Drying Time</th>
<th>At 20 °C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dust Resistance Time</td>
<td>5 min.</td>
</tr>
<tr>
<td>Surface Drying</td>
<td>10-15 min.</td>
</tr>
<tr>
<td>Complete Drying</td>
<td>15-20 min.</td>
</tr>
</tbody>
</table>
Application Data:
Surface must be clean by Mido Cleanser to be free of dust, grease and oil.
Prepare the desired color with suitable quantity and mix it well with Mido Mix thinner A1 till getting homogenous viscosity. (100 Basecoat : 90 thinner A1 ).
Using Spray Gun Nozzle No.: 1.3 – 1.4 mm
Air Pressure: 3 – 4 bars.
Viscosity: 18 – 20 seconds by Ford Cup # 4 at 25°C
Coats: 2 coats.

Shelf life:
Two years from the date of production in proper conditions at 25°C.

Packaging:
1 liter - 3.75 liter.
CLEAR COAT VARNISH MX

**Description:**
It is a two component clear coat varnish used for car refinish based on the best quality of acrylic resins, provides excellent gloss, very high weathering and chemical resistance and perfect mechanical properties.

**Advantage:**
- water-like color
- clear
- excellent drying
- fast drying
- high weathering and chemical resistance
- perfect mechanical properties

**Recommended use:**
- Car repair.
- Industrial coating

**Technical Information:**
- **Color:** Colorless
- **Viscosity:** 1.25 min ± 10 sec. ford cup No. 4 at 25°C
- **Density:** 1 ± 0.1 gm / cm³
- **Film thickness:** 50 - 60 micron

**Application Data:**
- **Mixing Ratio:** 100 cm clear coat: 50 cm of hardener.
- **Dilution:** Add (10 - 15%) Thinner Acrylic "high quality".
- **Apply 2 coats of Clear Coat Varnish MX.**
- **Allow 5 – 10 minutes for flash off between coats.**
- **In case of paint stoving you should let it about 15 min. for flash off before stoving.**
Drying Time:

<table>
<thead>
<tr>
<th></th>
<th>At 25°C</th>
<th>At 60°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dust Free</td>
<td>45 min.</td>
<td>5 min.</td>
</tr>
<tr>
<td>Tack Free</td>
<td>3.30 hrs.</td>
<td>15 min.</td>
</tr>
<tr>
<td>Hard Dry</td>
<td>16 hrs.</td>
<td>45 min.</td>
</tr>
</tbody>
</table>
**COMPONDS**

**Description:**
A special blend of waxes and silicones which shines all car finishes to look like new. It provides a protective waxy layer with high gloss. It can be applied easily.

**Contents:**
Selected hard waxes - silicones - protective polishing components.

**Technical Information:**
- Paste: Cream
- Odor: Mild
- Color: Cream yellow
- Specific Gravity: 1.1 ± 0.01 gm/cm³

**Application Data:**
- Put a little amount of cream on different parts of the surface.
- Spread it on the car surface with circular interwaving motion using a piece of cotton or soft cloth.
- Remove any residue with a clean cloth. Buff the paint surface to reach a glossy surface.

**POLISH**

**Description:**
Polish is a special blend of waxes and silicones which shines all car finishes to look like new. It provides a protective waxy layer with high gloss. It can be applied easily.

**Contents:**
Selected hard waxes - silicones - protective polishing components.

**Technical Information:**
- Paste: Cream
- Odor: Mild
- Color: Cream yellow
- Specific Gravity: 1.2 ± 0.02 gm/cm³

**Application Data:**
- Sand the surface to be polished with sandpaper No. 1200 - 2000, and then clean the car surface well before use.
- Spread the compound on the car surface. Using a damp cloth (or by machine) rub the compound in straight backwards and forwards motion.
- Remove any residue with a clean cloth. Buff the paint surface to reach a glossy surface.

Polish must be used along with compound to get maximum gloss.
NO.1 IN AUTOMOTIVE PAINTS