

## DATA SHEET

### Adhesion Primers for UV Adhesives MY-133 series

Generally speaking, MY-133 series has low adhesion to all substrates.

There are a few primers being offered:

1. Primer for Plastics: **Primer P**
2. Primer for Glass, Oxides, Ceramics and Metals: **Primer G**
3. Optical Primer for Glass with a matching RI of 1.33: **Primer 133H**.
4. A Pressure Sensitive **Primer-LC** with a matching refractive index to MY-133.

All the primers are supplied as dilute solutions in solvents. They are applied to the substrate as a thin coating prior to the application of the MY-133 adhesive.

**Primer P** is the primer for plastics.

It is a UV curable composition. It is suitable for most plastics such as acrylics, polystyrenes, polycarbonate, PET and more. It is applied as a thin coating by either dipping, brushing or other coating techniques. Thickness is non critical. It can be modified by dilution with acetone or other solvents. A 25% solids is a good starting point. The product is supplied as a 25% solids and may be diluted by acetone, MEK etc.

The major solvent component is HFE-7100 a safe hydro-fluoro-ether.

**Application:** After applying to the substrate, allows for the evaporation of the solvents or apply warm blown air to accelerate drying. There is no particular need to protect the coated surface from ambient light for the duration of this drying process. The dry primer will harden upon irradiation. There is no particular recommendation for the delay before applying the adhesive. Normally 5-60 minutes is a convenient delay. The primed parts can also be stored for up to a month before use.

#### **Primer G for Glass**

This one is almost identical to Primer P. The only difference is the presence of an additional adhesion promoter for inorganic oxides. This primer is suitable for plastics as well, yet, the presence of the adhesion promoter makes it sensitive to humidity and somewhat more sensitive for handling. Therefore, the Primer P should be preferred where it is suitable enough.

Like Primer P, Primer G is supplied as a ready to use 25% solids solution.

**Application:** Apply on glass, metal, oxides. Allow to dry. Allow at least 5 minutes for the adhesion promoter to react with the substrate before applying MY-133-x. Longer delay may provide a better adhesion. The adhesion may take time to develop. Allow at least 24 hours before testing the adhesion. Post curing at an elevated temperature at 60-100° for 30 minutes to 2 hours may provide better adhesion. In general the adhesion is very good with or without excessive delays and post curing and these extra steps may be eliminated.

Primer G is sensitive to humidity avoid opening the bottle too many times. If necessary split the product into a few well sealed glass vials.

Both primers P and G are also light sensitive. Both are intended to be cured by UV irradiation simultaneously with the top MY-133 material.

These primers are intended for the non optically active surfaces such as ferules or portion of fibers away from the active areas.

The cured layer of both primers has an RI of about 1.44.

Shelf life is in excess of 12 months.

**Safety:** The solvents are the more irritating components in these primers and they are volatile. The use of these products requires ventilated work place. In addition, refer to the Material Safety Data Sheet (MSDS) for more details and precautions.

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