

# **Technical Data Sheet**

# Ultra-Violet Light Stabilizer (UVLS) Clears Water-Based Acrylic – Aliphatic Urethane Resin



#### **Description**

UVLS clears are water-based, architectural-grade clears made for interior and exterior applications. UVLS Clears are made with an acrylic – aliphatic urethane resin which is exceptionally durable with excellent adhesion. Clears are durable and do not yellow over time.

UVLS stands for Ultra-Violet Light Stabilizer; clears contain UV protection for underlying colors, especially helpful when top-coating candy20 and other dyes & stains.

UVLS Clears have an ASTM E84 Class A fire rating for smoke & flame spread.

## Available in 4 different gloss levels

- 4050 Gloss
- 4051 Satin
- 4052 Matte
- 4053 High Gloss
- 4050 Gloss air dries semi-gloss and can be buffed & polished to a glossy finish.
- 4051 Satin & 4052 Matte maintain a consistent gloss-level that doesn't "gloss up" when excess material is applied.
- 4053 High Gloss is Createx's glossiest clear.

UVLS Clears can be inter-mixed to customize gloss-levels.

#### Gloss Measurements, Gloss Units (GU)

- 4053 High Gloss: 200 75 GU, 600 90 GU
- 4050 Gloss: 200 55 GU, 600 80 GU
- 2k Gloss Clear: 200 87 GU, 600 92 GU

#### **UVLS Clears are Architectural- Grade Clears**

UVLS Clears are suitable for interior & exterior application on projects such as sign, sculpture, cosplay, RC & scale modeling, and much more. UVLS Clears are not automotive-grade, meaning they do not have the mar (scratch) nor chemical resistance of a

catalyzed (2k), automotive-grade clear; UVLS Clears are not intended as top-coat clears when painting a car, motorcycle, or helmet.

UVLS Clear may be used as inter-coat or a flake carrier when painting automotive and may be directly top-coated with a 2k automotive clear.

UVLS Clears are compatible with and may be used as top-coat for any Createx paint for applications other than automotive.

UVLS Clears are water-resistant after curing but are not intended for water submersion. Use a marine-grade or 2k clear as a top-coat over Createx paints when submersion in water or allowing water to pool for an extended period on the painted surface is an intended application.

UVLS Clears have excellent flexibility over leather, vinyl, flexible plastics and more, excellent for cosplay & costuming.

## 4050 Gloss Clear is Multi-Functional

4050 is for use as inter-coat with excellent adhesion direct to primers and Createx paints without scuffing required. Use 4050 as:

- 1. Inter-coat clear to protect underlying paint during the graphic taping & masking process. 4050 dries to a hard, level surface over which tape & masking paper will lay down flat and stick to without lifting up.
- 2. Carrier for dry metal-flake and pearl-flake. Most any type or brand of dry flake or pearls may be mixed. Ratios vary, but on average do not exceed adding flake or pearls in excess of 20% per volume to 4050.
- 3. Mixing clear for use with any Createx paint to create an acrylic-urethane resin mix that has better adhesion, leveling and mar-resistance.



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- 4. Adhesive primer. 4050 works excellent as an adhesive promoter for making paint stick to plastic, metal, glass and other difficult to paint substrates. 4050 is direct-to-metal, with excellent adhesion to brass, polished steel, and other metals without risk of corrosion. For best adhesion onto polished, non-sanded metals, glass and ceramics, allow 48-hours air drying before applying paint over 4050.
- 5. Carrier-medium for concentrated candy2o. Mix 4050 6:1 candy2o, then (optional) thin with 4011 Reducer ~ 10% per volume. 4050 holds candy2o dyes in a more homogeneous suspension with even color build-up compared to mixing candy2o with 4030 Balancing Clear.
- 6. Only use 4050 as inter-coat, mixing clear or carrier for candy20. 4051 and 4052 will affect clarity of color if directly mixed and lack the adhesion for use as an adhesive primer compared to 4050.

### **Mixing & Thinning UVLS Clears**

UVLS Clears are thinned with 4011 Reducer. Add  $4011 \sim 10\%$  per volume to UVLS Clear for use with a spray-gun, and  $\sim 20\% - 30\%$  per volume for use with an airbrush.

- Allow reduced UVLS Clear 10+ minutes to acclimate before spraying. The added reducer breaks down surface tension in the clear for improved flow & leveling.
- Distilled or deionized water may be used 5% 10% per volume to thin clears, do not exceed as drying times and adhesion will be affected.

#### **Application**

UVLS Clears may be applied by spray-gun, airbrush, or traditional brush.

- Spray-Gun: 1.3mm 1.4mm
- Mini-Gun: 1.2mm
- Follow gun manufacturer's psi recommendations.
- Airbrush: 0.5m ~ 20 25 psi

Apply UVLS Clear as medium-wet coats, using a 50 / 50 overlapping pattern.

- Pin-hole free coverage is achieved with 3 medium coats
- Apply coats medium, wetted so they look glossy during application but not so much material that the coat "milks up", that is appears cloudy due to excess build.
- Each coat should be  $\sim 0.5$  0.75 mil. wet.
- If coat appears cloudy, allow extended drying time.
- Avoid over-atomizing; clears are best applied at lower psi settings for best adhesion and highest gloss-level of 4050 Gloss. Dry-sprayed coats will lose gloss and adhesion.

Scuffing underlying paint is not required.

- When applying 4050 Gloss Clear as an adhesive primer, dry sand substrate 400 800 grit.
- Clean sanded substrate with a solvent-based degreaser, not a water-based cleaner, prior to applying 4050 Gloss Clear.

## **Drying Times & Curing**

Estimated drying and curing times are set at 70°F (21°C) and 50% or less relative humidity (RH). Allow for extended drying times when painting in colder temperatures or more humid conditions. Painting in temperature below 60°F (15°C) not recommended.

Re-coat times are approximately 10 – 15 minutes.

- Allow clears to dry matte (non-wetted).
- There are no time windows, if in doubt, allow for extended drying time.

<u>Time to tape is 45 – 60 minutes after application.</u>

- When applying direct to difficult substrates, allow for extended drying times, up to 48-hours for substrates such as polished stainless steel that is not sanded for paint preparation.
- Scuffing clear is not required when taping UVLS Clears ~ 48-hours after application. After 48-hours, UVLS Clears cure to a hard coating. Tape and masking film will lay down best when Clear is dry sanded 600 800 grit.



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Do not use heat to assist to force dry as this may result in loss of adhesion. Use warm air to assist drying times.

Allow 6-hour minimum air drying before sanding & polishing. Full cure is more than 48-hours after application.

#### **Storage**

UVLS Clears do not have a pot-life after mixing with reducer. However, as 4011 Reducers promote drying and curing, only reduce clear intended for application within a 12-hour period for best spray consistency, flow and leveling.

Keep clears capped air-tight when not pouring from the bottle. Store away from direct light in a cool, dark environment such as a paint cabinet or box in a closet.

#### Compatibility

UVLS Clears are compatible as a clear or primer with any Createx paint.

- Compatible as a top-coat or primer for other paint types, both water-based and solvent-based.
- Always allow paint to dry thoroughly before top-coating with UVLS Clear.
- 4053 Gloss Clear works best over candy20 when applied in 2 sessions to achieve the highest gloss level. Apply 2 3 coats of 4053 over candy20, allow a minimum of 4-hours air drying time, then apply another 2 3 coats of 4053. Scuffing the first application of 4053 before

applying more coats is not required unless more than 48-hours air drying is allowed, in which case dry sanding with 600 grit is recommended to ensue optimum adhesion.

Cleaning from Airbrush or Spray-Gun

UVLS Clears are best rinsed from the airbrush or spraygun with 5618 Airbrush Cleaner or 4011 Reducer. Use 4008 Restorer as a rinse for final clean to remove dried paint.

### **Cleaning UVLS Clears after Curing**

UVLS Clears should only be cleaned thoroughly dried. Use a solvent-based degreaser.

Do not clean UVLS Clears with a water-based cleaner. Often, a dry, tack-free wipe is adequate to clean UVLS Clears.

#### **Health & Safety**

Use in a well-ventilated area. Avoid contact with eyes. Wash hands thoroughly with soap and warm water after use. Do not ingest. When spraying or sanding, use a properly fitting respirator.

Eye contact: Rinse with clean water for 15 minutes. Seek medical attention.

Inhalation: Use in in well ventilated areas and wear a respirator.

Refer to UVLS Clears SDS for additional information.

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