

DURENAMEL HARDENER CHART



INSTRUCTIONS: Select the surface to be filled and read what letter corresponds with that selection. Follow the chart below to choose the product that meets your working conditions.

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SURFACES TO BE COATED:

- A. Flat Surface With Walls** 
D. Severe Curve and High Domes 
B. Flat To slight Curve Without Walls 
E. Full Round Hoop, Bracelet 
C. Slight to Moderate Curve 
F. Open Mold Casting

| RECOMMENDED SURFACES TO BE COATED | HARDENER | DESCRIPTION | WORKING TIME 100 GRAMS MIX RATIO RESIN TO HARDENER | *CURE |
|-----------------------------------|------------------------|--|---|----------------|
| A, F | DURENAMEL HARDENER #1 | LOW VISCOSITY HARDENER OFFERING HARDEST SURFACE | 20-25 MINUTES 10:3 BY WEIGHT | 1 hr. @ 170°F |
| A, F | DURENAMEL HARDENER #2 | LOW VISCOSITY HARDENER WITH EXCELLENT CLARITY | 20-25 MINUTES 2:1 BY WEIGHT | 1 hr. @ 150°F |
| A, B, C | DURENAMEL HARDENER #3 | MEDIUM VISCOSITY, SLIGHTLY THIXOTROPIC HARDENER USED TO SUSPEND PARTICLES AND SWIRLS IN CAVITIES AND TO BE USED ON SLIGHTLY CURVED SURFACES. | 50-60 MINUTES 2:1 BY WEIGHT | 3 hrs. @ 130°F |
| A, F | DURENAMEL HARDENER #4 | A low viscosity hardener offering a long working time and excellent air release which can be used for filling cavities and coloring emblematic jewelry | 50-60 MINUTES 2:1 BY WEIGHT | 3 hrs. @ 130°F |
| A, B | DURENAMEL HARDENER #5 | MEDIUM VISCOSITY, SLIGHTLY THIXOTROPIC HARDENER USED TO SUSPEND PARTICLES AND SEIRLS IN CAVITIES AND TO BE USED ON SLIGHTLY CURVED SURFACES. | 50-60 MINUTES 2:1 BY WEIGHT | 3 hrs. @ 130°F |
| A, F | DURENAMEL HARDENER #6 | A low viscosity hardener offering a long working time and excellent air release which can be used for filling cavities and coloring emblematic jewelry | 50-60 MINUTES 2:1 BY WEIGHT | 1 hr. @ 150°F |
| A, F | DURENAMEL HARDENER #7 | A low viscosity hardener offering a long working time and excellent air release providing improved thermal shock properties | 50-60 MINUTES 2:1 BY WEIGHT | 3 hrs. @ 130°F |
| A, B, C | DURENAMEL HARDENER #8 | MEDIUM VISCOSITY, SLIGHTLY THIXOTROPIC HARDENER USED TO SUSPEND PARTICLES AND SWIRLS IN CAVITIES AND TO BE USED ON SLIGHTLY CURVED SURFACES. OFFERS EXCELLENT THERMAL SHOCK PROPERTIES | 50-60 MINUTES 2:1 BY WEIGHT | 3 hrs. @ 130°F |
| D, E | DURENAMEL HARDENER #9 | High viscosity hardener designed for irregular and extremely curved surfaces. Excellent thermal shock properties | 50-60 MINUTES 2:1 BY WEIGHT | 3 hrs. @ 130°F |
| C, D, E | DURENAMEL HARDENER #10 | Medium viscosity hardener offering a long working time and excellent thermal shock properties which can be used to coat a variety of pieces. | 50-60 MINUTES 2:1 BY WEIGHT | 3 hrs. @ 130°F |

1. Preparation of Piece

- A. Sand blast, bead blast, dimple, or rough up surface for better adhesion.

2. Material

- A. Resin-Durenamel Part A Colors or Clear
- B. Hardener-Durenamel Part B #1, #2, #3, #4, #5, #6, #7, #8,#9, or #10

3. Mixing

- A. Hardener #1 mixed at 10:3 by weight. Shore D 85-87
- B. Hardener #2 mixed at 10:5 by weight. Shore D 81-84
- C. Hardener #3 mixed at 10:5 by weight. Shore D 80-82
- D. Hardener #4 mixed at 10:5 by weight. Shore D 80-82
- E. Hardener #5 mixed at 10:5 by weight. Shore D 80-82
- F. Hardener #6 mixed at 10:5 by weight. Shore D 81-84
- G. Hardener #7mixed at 10:5 by weight. Shore D 81-84
- H. Hardener #8mixed at 10:5 by weight. Shore D 81-84
- I. Hardener #9mixed at 10:5 by weight. Shore D 81-84
- J. Hardener #10mixed at 10:5 by weight. Shore D 81-84

4. Application

- A. Slightly over fill the cavity to be filled.

5. Cure

According to recommendations

6. Grinding

- A. Use a wet sanding wheel or belt with a 400 grit, then finish with a 600 grit.
- B. Do not let the piece get hot as this could cause wrinkling or lifting of the epoxy.
- C. Do not use any rouge.
- D. Estimated speed of wheel 1400-1725 RPMs.

7. Polishing

- A. Use a standard soft felt wheel at a lower speed.
- B. Use a plastic polishing compound.
- C. Do not press the epoxy against the polishing wheel because you could burn it or cause the epoxy to expand and contract resulting in the Durenamel popping off the piece. Use light, soft pressure for best results.
- D. Sometimes it may be necessary to post cure the epoxy before polishing at 150°F for one hour.
- E. Wheels to be used
 - 1. Medium felt wheel or 3M 4 X 1/2 X 1/4 Soft Polish wheel.
 - 2. 42 ply muslin buffs.
 - 3. Cutting is done with either a wet pumice wheel or wet sanding wheel or belt.

***Note:** If you are going to plate with the epoxy on the piece, you must put a lukewarm rinse tank (80°F - 85°F) between the first flash and the next dip to avoid the epoxy from falling out.

: Never use solvent in ultrasonic clear.