

## Example of CYTOP curing conditions

### Precautions for handling

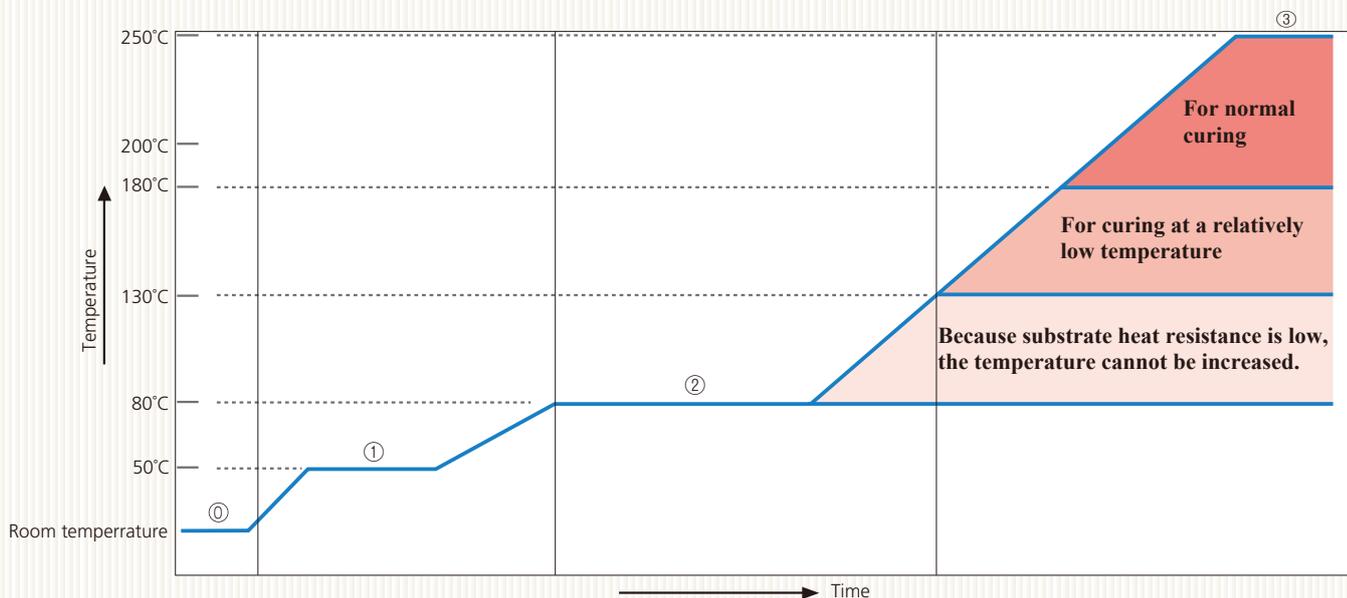
Please be sure to read MSDS before using this product to ensure safe handling.

### CYTOP has different recommended baking conditions depending on the part number.

| CYTOP part number   | Solvent    | Characteristics   | Example of baking conditions  | Example of recommended temperature conditions for final baking |
|---|------------|---|---|--|
| <b>100 series (for Dip coating)</b><br>Example: CTL-109AE }<br>CTX-109AE } → CT-SOLV100E<br>CTL-107MK } → CT-SOLV100K |            | Solvent boiling point is 100°C.<br>Solvent is easily volatilized at room temperature.<br>Solvent viscosity is low.  | Drying at room temperature: 5 to 30 min.<br>↓<br>Final baking: 60 min.                      | 80°C or more<br>200°C or less                                  |
| <b>800 series (for Spin coating)</b><br>Example: CTL-809A<br>CTX-809A<br>CTL-809M                                     | CT-SOLV180 | Solvent boiling point is 180°C.<br>Solvent is hardly volatilized at room temperature.<br>Solvent viscosity is high. | Drying at room temperature: 5 to 30 min.<br>↓<br>Pre-baking: 10 to 60 min. at 50°C to 100°C | 180°C or more<br>250°C or less                                 |

- Optimum baking conditions vary depending on film thickness, substrate, and process.
- The customer should study optimum baking conditions (temperature and time).
- Because the solvent is completely volatilized to improve adhesion with the substrate, it is recommended to perform final baking at as high a temperature as possible.
- If high-temperature baking is performed with solvent remaining, the coating surface may be rough (orange peel) or the uneven film thickness may occur (particularly with 800 series).
- If the coating surface becomes rough or if the film thickness is uneven, reduce prebaking temperature, extend baking time, or bake gradually as shown in the figure below. Take action to ensure the solvent dries slowly.
- The conditions are the same for a hot plate or oven.

\* Recommended silane coupling agent  $\text{H}_2\text{NCH}_2\text{CH}_2\text{CH}_2\text{Si}(\text{OCH}_2\text{CH}_3)_3$  (3-Aminopropyltrimethoxysilane)  
 "KBE-903" by Shin-Etsu Chemical Co., Ltd.  
 "SILA-ACE S330" by Chisso Corporation



|                            | ① | ① Prebaking (degas)   | ② Prebaking (removal of solvent)  | ③ Final baking  |
|----------------------------|---|---|---|---|
| Drying at room temperature |   | The purpose is to remove gas. If it is difficult to remove bubbles in the resin, extend the time of this process. | The purpose is to remove solvent. Drying occurs from the resin surface. If this process is short, a certain amount of solvent will remain in the resin. | This process is necessary to improve adhesion with the base material. |

|            |              |                      |                      |                              |
|------------|--------------|----------------------|----------------------|------------------------------|
| 100 series | 5 to 30 min. | Not required.        | Not required.        | 80 to 200°C x 30 to 60 min.  |
| 800 series | 5 to 30 min. | 50°C x 10 to 30 min. | 80°C x 30 to 60 min. | 180 to 250°C x 30 to 60 min. |

\* If the film is thin (5 μm or less), "① Prebaking process" is not required.