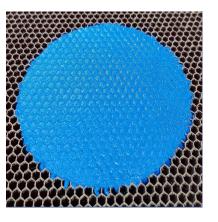
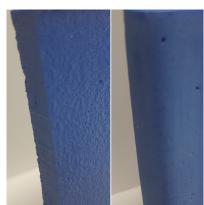


# resoltech 8060

Hardener 8068

## High T<sub>G</sub> epoxy filler







- Tg up to 119°C
- Fast curing
- Easy sanding
- Suitable for radio-electric applications

#### INTRODUCTION

**RESOLTECH 8060 / 8068** filler is an epoxy formulated for profiling or repairing parts with **high temperature resistance** demand.

After curing at ambient temperature, a post-curing at 60°C will be needed to release from the mold.

To reach optimal mechanical and thermomechanical properties with  $T_{\rm e}$  up to 119°C, a post-curing of 4 hours at 120°C is required.

RESOLTECH 8060 / 8068 is suitable for radio-electric applications as radome.

#### **MIXING RATIO**

The mixing ratio must be accurately followed. It is not possible to change the ratio, it would result in lower mechanical properties.

The mixture should be thoroughly stirred to ensure full homogeneity.

Systems	8060 / 8068
Mixing ratio by weight	100/40
Mixing ratio by volume	100/45

### **APPLICATION**

- It is recommended to use products at a **temperature close to 18-25°C** in order to facilitate the mixing and the reinforcements impregnation.
- Lower temperatures will increase the viscosity of the mixture and the gel time
- On the contrary, a higher temperature will reduce the viscosity of the mixture as well as the pot life.

### PHYSICAL CHARACTERISTICS

## Visual aspect

8060: 8068: Mix: Blue paste White to yellowish paste Blue paste

### **Density**

References	8060	8068
Density at 23°C	0.83	0.65
Mix density at 23°C	-	0.78

ISO 1675, ± 0.05 tolerance

### **Viscosity**

References	8060	8068
Viscosity at 23°C (mPa.s)	90 000	30 000
Mix viscosity at 23°C (mPa.s)	-	50 000

Measured with rheometer, shear rate 20s<sup>-1</sup>, gap 1mm, 2min, ± 15% tolerance

### Water absorption

System 8060 / 8068	
Water absorption	0.10 %

According to ISO 62

### **REACTIVITIES**

System	8060 / 8068
Gel time on 70mL at 23°C* (4cm high)	23min
Time at exothermic peak on 70mL at 23°C	28min
Temperature at exothermic peak on 70mL at 23°C	120.7°C
Gel time on 1mm film at 23°C**	1h20min

<sup>\*</sup> Gel time measurements realized with Rheotech\*
\*\* Gel time on film measurement realized on rheometer

### **RETICULATION & POST-CURING**

In order to obtain the maximum thermo-mechanical properties, it is necessary to respect the recommended curing cycle.

The table below shows the glass transition temperatures (DSC) according to different curing cycles.

System		8060 / 8068
4h at 120°C	T <sub>e</sub>	119°C
	Shore D Hardness	70

T<sub>c</sub> measured by DSC, 10°C/min, inflexion point Shore D hardness measured at 23°C according to ISO 868

Post-curing cycles previously presented were chosen in order to reach the maximum potential of each systems. Depending on parts size, oven performance and hardener used, shorter post-curing cycles could lead to fully cured parts.

Please contact our laboratory service for any help on post-curing cycles.

### 2 Temperature stability

Curing cycles	% of expansion over 1 cm (thickness)
After 2 h at 60°C + 4h at 120°C	0.52%
After cooling back at 23°C	0.29%

#### **MECHANICAL PROPERTIES**

System		8060 / 8068
	FLEXION	
	Modulus	1.93 GPa
4h at 120°C	Maximum strength	29.5 MPa
	Elongation at max strength	1.71%
	Elongation at break	1.71%

Flexion properties on pure resin according to ISO 178

### RADIOELECTRIC TRANSPARENCY

System	8060 / 8068
Frequency	11 - 15 GHz
ε'	2.4
tg∆	0.025

#### **PACKAGING**

- Metal box kit of 0.5kg + 0.2kg
- Metal bucket kit of 3kg + 1.2kg
- Metal bucket kit of 18kg + 7.2kg

### TRANSPORT & STORAGE

Keep containers sealed and away from heat and cold preferably between 10°C and 30°C in a well ventilated area. Our products are guaranteed in their original packaging (check expiry date on the label).

#### **HEALTH & SAFETY**

Skin contact must be avoided by wearing protective nitrile gloves & overalls or other protective clothing. Eye protection should be worn to avoid risk of resin, hardener, solvent or dust entering the eyes. If this occurs flush the eye with water for 15 minutes, holding the eyelid open, and seek medical attention.

Ensure adequate ventilation in work areas. Respiratory protection should be worn with ABEKP coded filters.

Resoltech issues full Material Safety Data Sheet for all hazardous products. Please ensure that you have the correct MSDS to hand for the materials you are using before commencing work.

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The data provided in this document is the result of tests and is believed to be accurate. We do not accept any responsibility over the mishandling of these products and our liability is limited strictly to the value of the products we manufacture and supply.



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