

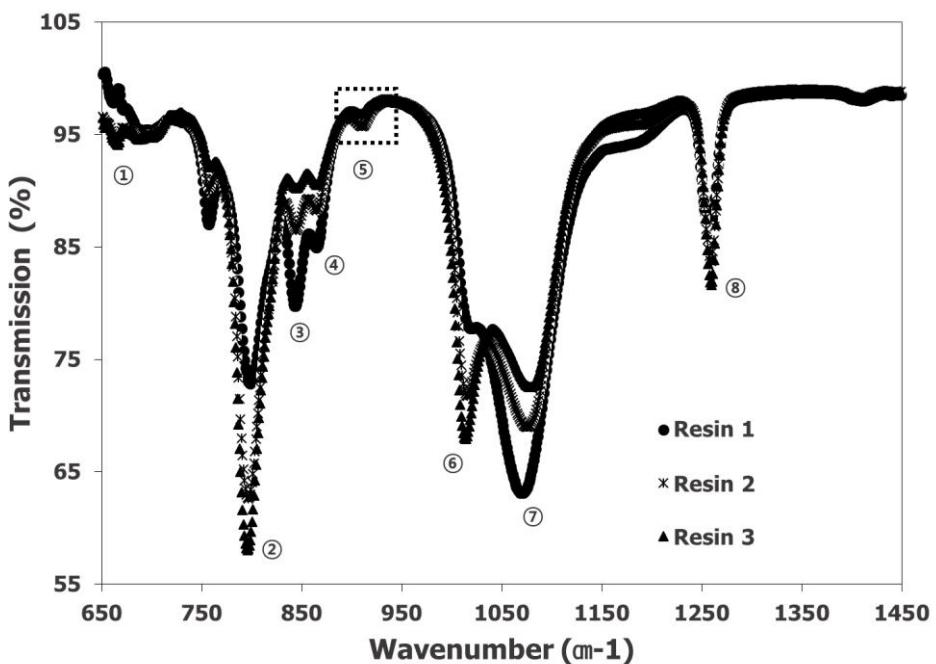
## **Supplementary Materials**

### **A Study on Mechanical Characteristics of Phosphor Film Containing Methyl Silicone Resin based on Crosslinking Reaction Analysis**

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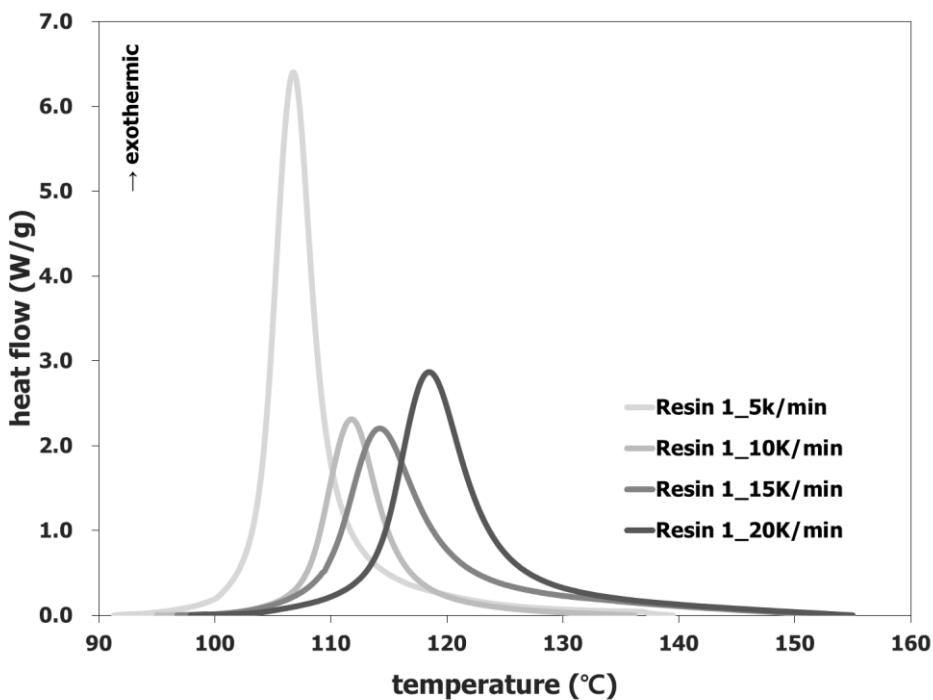
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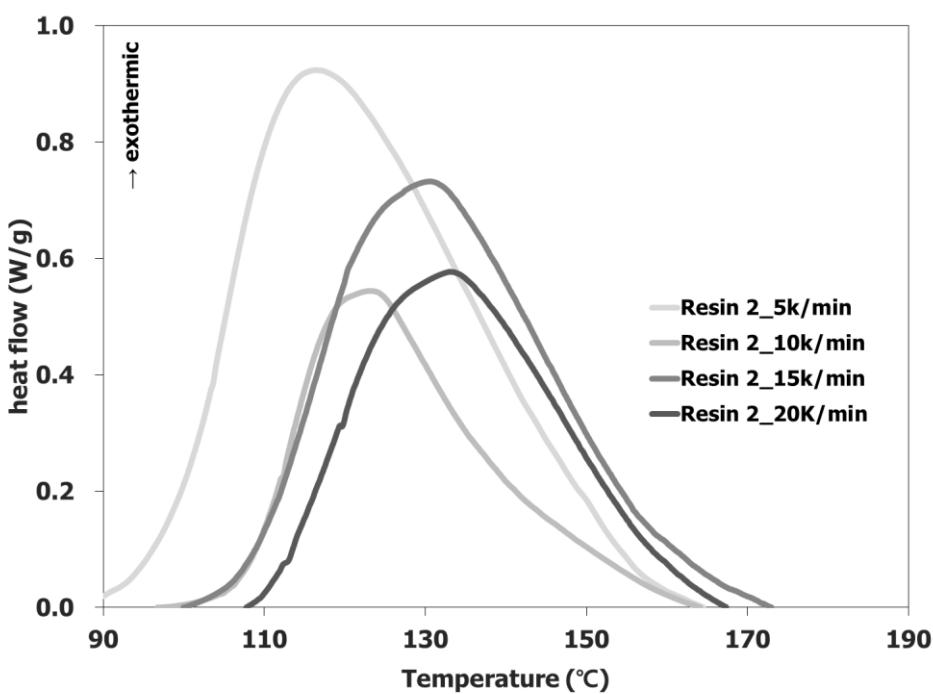
**Figure. S1.** Comparison of absorption peaks of the three resins.

**Table S1.** Absorption peak of each resin and functional group in absorbance areas

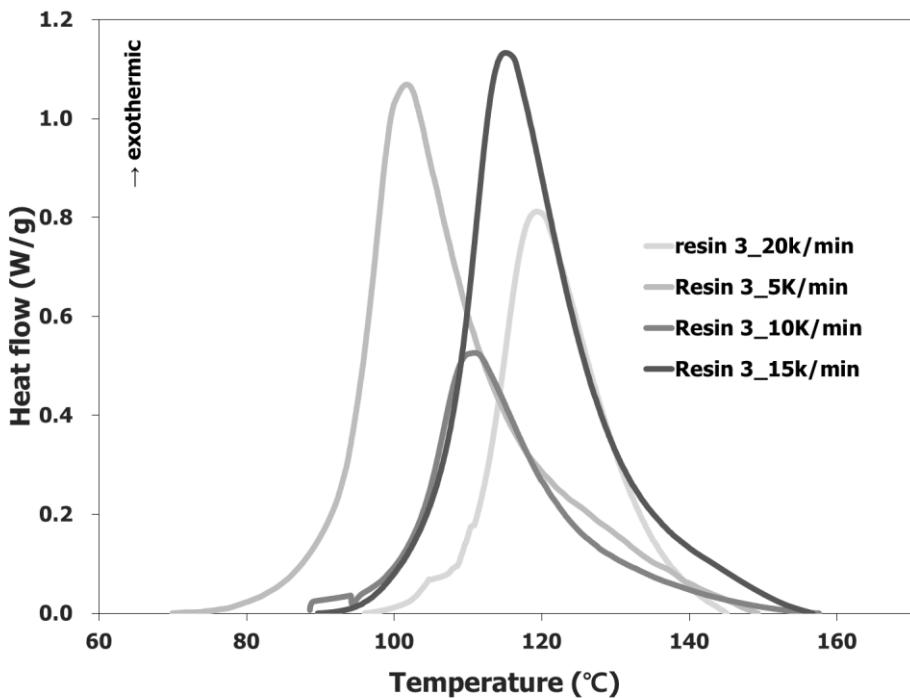
Absorbance Area	Resin 1	Resin 2	Resin 3	Functional group
①	757.423	756.836	Indefinite	CH non-coplanar bending
②	796.486	798.052	795.814	$>\text{Si}(-\text{CH}_3)_2$
③	844.165	843.249	844.328	Si-O stretching
④	864.523	864.214	865.087	Si-O stretching
⑤	909.977	908.032	908.85	Si-H deformation and wagging
⑥	1015.14	Indefined	1013.84	$\text{SiO}_3$
⑦	1015.14	1069.92	1078.43	Si-O-Si
⑧	1258.88	1257.53	1259.11	$>\text{Si}(-\text{CH}_3)_2$



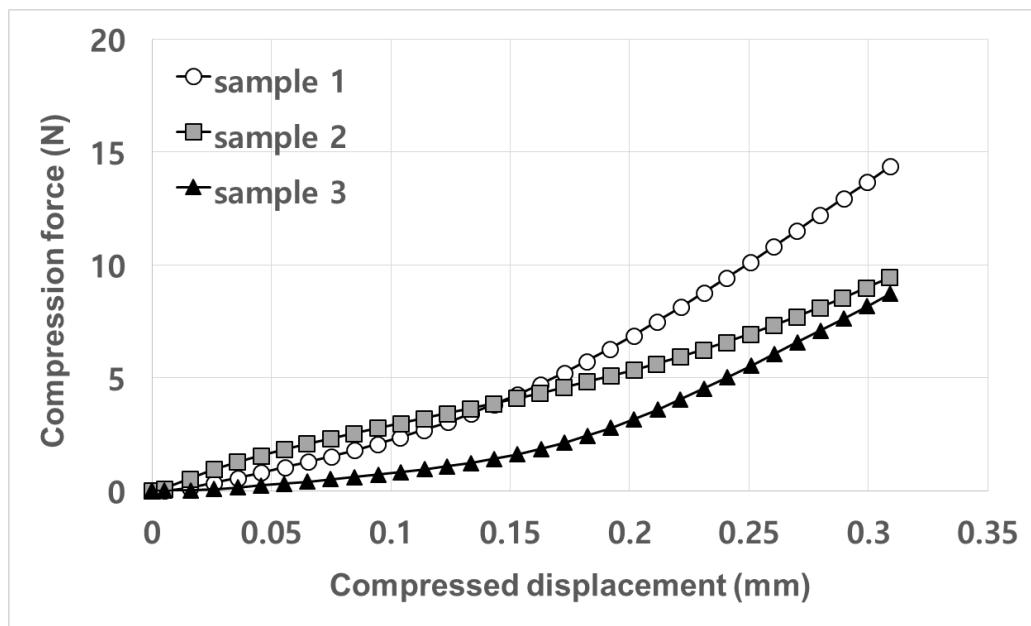
**Figure. S2.** Comparison of heat flow vs. temperature per heating rate for calculating the activation energy of Resin 1.



**Figure. S3.** Comparison of heat flow vs. temperature per heating rate for calculating the activation energy of Resin 2.



**Figure. S4.** Comparison of heat flow vs. temperature per heating rate for calculating the activation energy of Resin 3.



**Figure. S5.** Resulting force vs. compression displacement for Resin 1, 2, and 3.