

#### **Chemical Compatibility**



Kit Part No. CCK-6MX6

# **Chemical Compatibility Test Kit**

- Includes 6 Cree MX-6 LEDs
- Used to properly test material chemical compatibility up to 85°C<sup>(1)(2)</sup> conditions
- Test material intended for use with LEDs for outgassing volatile organic compounds (VOCs) that can damage LEDs in a sealed environment
- MX-6 must run a constant current of 350mA<sup>(1)(2)</sup>
- Used to validate chemical compatibility with: MHB-A, MHD-G, MX-3, MX-6, ML-B, ML-C, and ML-E LEDs
- Reference Documents:
  - Chemical compatibility testing procedures video HERE
  - <sup>(1)</sup>For most up to date testing information check the Cree chemical compatibility application notes HERE



• <sup>(2)</sup>Make sure work surface can handle temperature conditions.







#### **Chemical Compatibility**



Kit Part No. CCK-6XHP50

# **Chemical Compatibility Test Kit**

- Includes 6 Cree XHP LEDs
- Used to properly test material chemical compatibility up to 120°C<sup>(1)(2)</sup> conditions
- Test material intended for use with LEDs for outgassing volatile organic compounds (VOCs) that can damage LEDs in a sealed environment
- XHP must run a constant current of 700mA<sup>(1)(2)</sup>
- Used to validate chemical compatibility with: XHP35, XHP50, XHP70 LEDs
- Reference Documents:
  - Chemical compatibility testing procedures video HERE •
  - <sup>(1)</sup>For most up to date testing information check the Cree chemical compatibility application notes HERE
- <sup>(2)</sup>Make sure work surface can handle temperature conditions.







### **Chemical Compatibility**



Kit Part No. CCK-6XPE

### **Chemical Compatibility Test Kit**

- Includes 6 Cree XLamp<sup>®</sup> XP-E LEDs
- Used to properly test material chemical compatibility up to 85°C<sup>(1)(2)</sup> conditions
- Test material intended for use with LEDs for outgassing volatile organic compounds (VOCs) that can damage LEDs in a sealed environment
- XP-E must run a constant current of 700mA<sup>(1)(2)</sup>
- Used to validate chemical compatibility with:

CXA, CXB, XP-C, XP-E, XP-G, XM-L, XM-L HV, XT-E, XT-E HV, MK-R, XB-D, XQ-D, XQ-B, and MT-G LEDs

- Reference Documents:
  - Chemical compatibility testing procedures video HERE
  - <sup>(1)</sup>For most up to date testing information check the Cree chemical compatibility application notes HERE
- <sup>•</sup> <sup>(2)</sup>Make sure work surface can handle temperature conditions.







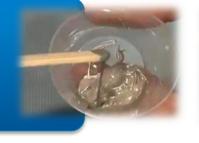
### **CREE** Chemical Compatibility Kit - Quick Reference Guide

Place material to test on top of the first three LED components, then place the material to test on the base of the next two LED components. The final LED will be the <u>control reference</u>.





Mix the Arctic Alumina Thermal Adhesive in a mixing cup. Apply the adhesive around the base of the glass vials then place around each LED. Twist slightly to ensure a proper seal.







Solder wire leads to each chemical board and attach a constant current supply. Drive current varies based on component type. Run test for 1,000 hours and watch for changes in LED intensity and/or color.





XHP50 must run constant current of 700mA<sup>(1)</sup>



XP-E must run constant current of  $700 \text{mA}^{(1)}$ 



MX-6 must run constant current of 350mA<sup>(1)</sup>





(1) For most up to date testing information check the cree chemnical compatibility application notes below: https://cree.led.com/media/documents/ XLamp\_Chemical\_Comp.pdf

