

# Tools

## CHAMPION MIX® (EPOXY ADHESIVE)

The CHAMPION MIX system is a two-part adhesive (1-to-1 mix ratio), epoxy resin system, designed to permanently bond fittings and joints of fiberglass reinforced epoxy conduit. It is also designed for use with pultruded polyester and vinyl ester components. Each cartridge system contains resin, hardener and one plastic static mixer. An adhesive gun is required for applying the adhesive (ordered separately). Under normal conditions, it takes approximately 45 minutes for the CM-2040 and CM-2070 adhesives to harden at their rated temperatures. If a faster setting adhesive is desired, there are Champion Mix adhesives available that gel much faster. The "Fast Gel" adhesives can be specified by adding the suffixes, "-FG" or "-SFG" to the item numbers. Because the "Fast Gel" and "Super-Fast Gel" adhesives set up quicker, additional mixing tubes may be required.

The epoxy adhesive is also available in three convenient dispensing tube sizes: 50 ML, 80 ML and 300 ML.



For further information, use your smart phone's camera or QR code scanner to learn more about **Champion Mix adhesives**.



For further information, use your smart phone's camera or QR code scanner to learn more about **Champion's Epoxy Adhesive Calculator**.

	ITEM NO	SIZE	TEMPERATURE RANGE	APPROXIMATE CURING TIME
<input type="checkbox"/>	CM-570	50 ML	70°F (21°C) and above	30–45 minutes
<input type="checkbox"/>	CM-570-FG	50 ML	70°F (21°C) and above	20–30 minutes
<input type="checkbox"/>	CM-570-SFG	50 ML	70°F (21°C) and above	3–7 minutes
<input type="checkbox"/>	CM-540	50 ML	40°–70°F (4°C–21°C)	30–45 minutes
<input type="checkbox"/>	CM-540-FG	50 ML	40°–70°F (4°C–21°C)	20–30 minutes
<input type="checkbox"/>	CM-540-SFG	50 ML	40°–70°F (4°C–21°C)	3–7 minutes
<input type="checkbox"/>	CM-1070	80 ML	70°F (21°C) and above	30–45 minutes
<input type="checkbox"/>	CM-1070-FG	80 ML	70°F (21°C) and above	20–30 minutes
<input type="checkbox"/>	CM-1070-SFG	80 ML	70°F (21°C) and above	3–7 minutes
<input type="checkbox"/>	CM-1040	80 ML	40°–70°F (4°C–21°C)	30–45 minutes
<input type="checkbox"/>	CM-1040-FG	80 ML	40°–70°F (4°C–21°C)	20–30 minutes
<input type="checkbox"/>	CM-1040-SFG	80 ML	40°–70°F (4°C–21°C)	3–7 minutes
<input type="checkbox"/>	CM-2070	300 ML	70°F (21°C) and above	30–45 minutes
<input type="checkbox"/>	CM-2070-FG	300 ML	70°F (21°C) and above	20–30 minutes
<input type="checkbox"/>	CM-2070-SFG	300 ML	70°F (21°C) and above	3–7 minutes
<input type="checkbox"/>	CM-2040	300 ML	40°–70°F (4°C–21°C)	30–45 minutes
<input type="checkbox"/>	CM-2040-FG	300 ML	40°–70°F (4°C–21°C)	20–30 minutes
<input type="checkbox"/>	CM-2040-SFG	300 ML	40°–70°F (4°C–21°C)	3–7 minutes



50 ML Tubes



80 ML Tubes



300 ML Tubes



**Estimated Number of Joints Per Container**

(estimated only - varies depending on amount of adhesive applied per application)

50 ML		80 ML		300 ML	
SIZE	JOINTS PER CONTAINER	SIZE	JOINTS PER CONTAINER	SIZE	JOINTS PER CONTAINER
3/4"	16	3/4"	27	3/4"	100
1"	14	1"	22	1"	85
1-1/4"	12	1-1/4"	20	1-1/4"	75
1-1/2"	10	1-1/2"	16	1-1/2"	60
2"	8	2"	13	2"	50
2-1/2"	6	2-1/2"	11	2-1/2"	40
3"	5	3"	9	3"	35
3-1/2"	5	3-1/2"	8	3-1/2"	30
4"	4	4"	6	4"	25
5"	3	5"	5	5"	20
6"	2	6"	4	6"	15

**ADHESIVE GUNS**

Champion Fiberglass adhesive guns are available for all three adhesive tube sizes; 50 ML, 80 ML and 300 ML.

	ITEM NO	ADHESIVE TUBE SIZE
<input type="checkbox"/>	CMAG-5	50 ML
<input type="checkbox"/>	CMAG-10	80 ML
<input type="checkbox"/>	CMAG-20	300 ML



CMAG-5



CMAG-10



CMAG-20

**BATTERY-POWERED ADHESIVE GUN**

Champion Fiberglass 18V Li-Io battery-powered adhesive guns are only available for the 300 ML adhesive tube sizes. This powerful 18V cordless drive system is supplied with a sturdy 300 ML dispensing cartridge carriage.

Other features include:

- Flow control – instant drive disengagement when trigger is released
- Lightweight ergonomic design – reduces wrist and arm strain
- Rapid battery charging – 30 minutes
- Battery fuel gauge – indicates charging power battery level

All battery-powered adhesive guns are supplied fully assembled and supplied with one (1) 18V Li-Io battery and (1) 18V charger.

	ITEM NO	ADHESIVE TUBE SIZE
<input type="checkbox"/>	CMAG-20-B	300 ML



CMAG-20-B

### MIXING TIPS

Champion Fiberglass mixing tips are required for mixing together the two-part epoxy adhesive supplied in tubes. They are available for all three adhesive tube sizes; 50 ML, 80 ML and 300 ML.

	ITEM NO	ADHESIVE TUBE SIZE
<input type="checkbox"/>	CM-MT-5	50 ML
<input type="checkbox"/>	CM-MT-8	80 ML
<input type="checkbox"/>	CM-MT-20	300 ML



### EPOXY ADHESIVE KIT

Champion Fiberglass Epoxy Adhesive Kit, contains two cans, one with base epoxy adhesive (black color) and the other with hardener (white color), stir sticks, sand paper for abrading conduit surfaces and an instruction sheet. When properly mixed, the adhesive will be evenly grey.

The adhesive kit is offered for three different ambient curing temperatures:

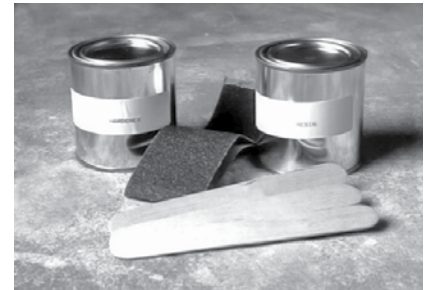
- Item# CF-1070, for 70°F (21°C) ambient temperature (standard grade)
- Item# CF-1040, for 40°F (4°C) ambient temperature (special grade)
- Item# CF-1020, for 20°F (-7°C) ambient temperature (special grade)

Adhesive curing time is dependent on the ambient temperature. As a guideline, the CF-1070 adhesive is cured at 75°F (29°C) in one hour. Contact Champion Fiberglass for curing information at extreme temperatures (high or low). Champion Fiberglass adhesive can be used for bonding fiberglass and PVC together.

#### Estimated Number of Joints Per Kit

(estimated only - varies depending on amount of adhesive applied per application)

SIZE	JOINTS PER KIT	SIZE	JOINTS PER KIT
3/4"	40	3"	15
1"	35	3-1/2"	13
1-1/4"	30	4"	10
1-1/2"	25	5"	8
2"	20	6"	6
2-1/2"	18	8"	4



### BENDING HANDLES

Champion Bending Handles are made from machined steel and available for IPS and XW conduit sizes 3/4" through 2". These bending handles provide additional leverage during the field hand bending process when using a PVC hotbox.

	ITEM NO	CONDUIT SIZE (IPS)
<input type="checkbox"/>	CBH-075	3/4"
<input type="checkbox"/>	CBH-100	1"
<input type="checkbox"/>	CBH-125	1-1/4"
<input type="checkbox"/>	CBH-150	1-1/2"
<input type="checkbox"/>	CBH-200	2"

	ITEM NO	CONDUIT SIZE (XW)
<input type="checkbox"/>	CBHX-075	3/4"
<input type="checkbox"/>	CBHX-100	1"
<input type="checkbox"/>	CBHX-125	1-1/4"
<input type="checkbox"/>	CBHX-150	1-1/2"
<input type="checkbox"/>	CBHX-200	2"

