



Safe Fire Ratings

The National Fire Protection Agency (NFPA) reported 383,500 home fires in the United States, accounting for \$5.5 billion of property damage.

The following information applies to both Fire Rated Safes and Burglar/Fire Rated Safes. **Remember that a Fire Safe without a Burglar Rating is not recommended for Burglar Resistance.** If you need both Fire and Burglar resistance, always consider a **Burglar/Fire Rated Safe** over a **Fire Rated safe** only.

U.L. Classes of Fire Protection

Underwriters Laboratories established five fire-resistant classifications for record protection. These classifications are based on the type, length, and severity of the test given each classification. Here is the test times and temperatures for the various classifications:

CLASSIFICATION	INTERNAL TEMPERATURE	TIME IN FURNACE	EXTERNAL TEMPERATURE REACHING
Class A	350 degrees F	4 hours	2000 degrees Fahrenheit
Class B	350 degrees F	2 hours	1850 degrees F
Class C	350 degrees F	1 hour	1700 degrees F
Class D	350 degrees F	1 hour	1700 degrees F
Class E	350 degrees F	30 minutes	1550 degrees F

Fire Endurance Test

The Fire Endurance test measures the degree of resistance that the **safe** has to temperatures determined by standardized fire exposure conditions.

In preparation for the fire endurance test, the **safe** is placed in a cold furnace so that all exterior surfaces will be exposed except the bottom. Heat measuring apparatus is installed in the interior of the **safe**, and papers are loosely distributed to contact all interior surfaces. The safe doors are closed and locked, the furnace is shut, and the fire is started.

The heat of the furnace is gradually increased according to set standards of time and temperature. The gas and air supply is adjusted carefully so that the fire is well distributed over the sample, and thermocouples symmetrically distributed in the furnace accurately record temperatures so that the test standards are maintained.

The test sample remains in the furnace for the period required for the desired classification. When the time has expired, the fire is extinguished, and the sample is allowed to cool without opening the furnace. Here is the test times and temperatures for the various classifications:

After the test sample has cooled, it is opened, and the contents and interior surfaces are examined. The records must still be usable, and the interior must show no signs of undue heat transmission. At no time during the test must the temperature inside the safe exceed 350 degrees F. The general security of the safe is also examined. The records are considered "usable" if they can be handled without breaking and are decipherable by ordinary means.