

Standards Guide:
EN 407:2004
Explained



This standard measures how well protective gloves perform against thermal risks. All gloves that conform to this standard are marked with this symbol.

This flame symbol is also accompanied by six digits - one for each test. Each test is graded from 0 to 4, with 0 being a fail and 4 indicating maximum resistance.

Note: the higher the number/letter, the better the protection. If a glove was not tested for a certain category, it may be marked with an 'X' instead.

I	II	III	IV	V	VI
Resistance to Flammability	Contact Heat Resistance	Convective Heat Resistance	Radiant Heat Resistance	Resistance to Small Splashes of Molten Metal	Resistance to Large Splashes of Molten Metal
Highest Level: 4	Highest Level: 4	Highest Level: 4	Highest Level: 4	Highest Level: 4	Highest Level: 4
Known as "burning behaviour" or "burning resistance", this test measures the length of time the glove material continues to burn and glow following ignition. In this test, the material is set alight by a gas flame. The flame is held against the test glove for 15 seconds before being removed. The after-burn and after-glow time is measured.	This test exposes the sample to temperatures between 100°C and 500°C. The time it takes for the temperature on the inside of the glove to increase by 10°C is measured. The sample is placed into contact with pre-heated plates, which are warmed up in stages. If a sample scores a Level 3 in this test, it should also record at least a Level 3 in the Flammability Test.	This test determines how well the glove material delays the transfer of heat. To determine this, the sample is heated by a controlled gas flame on one side. A weighted sensor measures the temperature on the opposite side. The time it takes for the heat to transfer to the sensor is measured. A performance level is only indicated if the sample obtains a Level 3 or 4 in the flammability test.	Much like the previous test, Radiant Heat Resistance assesses the length of time the glove material delays the transfer of heat. This time the sample is exposed to a radiant heat source. A performance level is only indicated if the sample obtains a Level 3 or 4 in the flammability test.	This test determines the number of molten metal droplets needed to heat the sample glove to a given level. The test stops once the temperature between the inside of the glove and the wearer's skin reaches 40°C. A performance level is only indicated if the sample obtains a Level 3 or 4 in the flammability test.	A simulated skin is placed on the inside of the sample glove, and molten metal is then poured over the outside. This test measures the weight of molten metal needed to damage the simulated skin. If metal droplets remain stuck to the sample, or if the material ignites the test is considered a fail, and a performance level of 0 will be awarded.
					