city fire protection
& Maintenance Services LLP

The Temperature of Fire

Fire is very hot - this much is obvious. Whether you've lit a match or you have a roaring fire going in your fireplace, you really don't want any naked flame coming into contact with your skin. However, not all fires burn at the same temperature - different materials offer different amounts of heat.

Candle Flames

The outer core of a candle flame burns at 1,400°C, and the core of the flame burns at 800°C, which is quite surprising for such a tiny flame!

Oven Walls

The walls of an oven generate temperatures of 500°C.

Log Fire Flames

That crackling fire in your fireplace is burning at 600°C, perfect for warming your hands (from a safe distance).

Bonfire Flames

A bonfire built with charcoal and wood can burn at a staggering 1,100°C.

Bunsen Burner Flames

In science labs and schools around the world, Bunsen Burners emit a flame that reaches temperatures of 1,200°C.

The Sun

The surface of The Sun is 2,000,000°C, which is incomprehensibly hot. However, that is lukewarm compared to the core, which burns at 15,000,000°C.

Flame Colour Temperature

Depending on the temperature of the fire, the dominant colour of the flame changes. There are a number of different colours that can be visible with varying heat, so we've created this guide to help you know the heat of your hue:

525°C
Just Visible

700°C
Dull

800°C
Dull, Cherry Red

900°C
Full Cherry Red

1,000°C
Clear Red

1,100°C
Deep Orange

1,200°C
Clear Orange

1,300°C
Whiteish

1,400°C
Bright White

1,500°C
Dazzling White

Average Temperature Of A House Fire

A house fire burns at an average temperature of 593°C, which is devastatingly hot. This emphasises just how important it is that all necessary precautions are taken when at home, to ensure the risk of fire is minimised.

What Is The Melting Point Of...

Stainless Steel	1,510°C
Cast Iron	1,127 - 1,204°C
Wrought Iron	1,482 - 1,593°C
Copper	1,084°C
Gold (24 Carat)	1,063°C

Aluminium	660°C
Graphite	3,730°C
Brass (Red)	1,000°C
Brass (Yellow)	930°C

These are just some of the many nuances and variables of fire - while we may see it as an amazing (and sometimes intimidating) orange glow, there are various different factors which mean different materials react differently to the heat. No matter what, it is always vital that you are knowledgeable of fire safety practices and how to put them into action.

City Fire Protection are a leading provider of fire safety equipment and training for customers throughout the country. For more information, get in touch with us today and we will be more than happy to help.