DATA SHEET

Classification of Fires

Summary of BS ISO 3941:2026

Purpose and scope

BS ISO 3941:2026 categorises fires into classes according to the type of fuel that is burning. These classes are especially relevant to fire protection and firefighting equipment and give a simple way to refer to different kinds of fire in speech and writing.

The six fire classes

Class	What is burning
A	Solids, usually organic, which normally burn producing glowing embers. Examples include wood, cloth, paper, rubber and many plastics.
B	Liquids, or solids that can become liquid.
C	Gases.
D	Metals.
F	Cooking media (vegetable or animal oils and fats) in cooking appliances.
L	Lithium-ion cells and batteries that contain no lithium metal. These are electrochemical fires. Compared with most Class A, B, C, D and F fires, their higher energy density can make them grow faster once released.

Hazards and firefighting considerations

All classes. As well as the class-specific hazards below, the toxicity of the products of combustion must be considered for every class of fire.

Class	Key considerations
A	The fire may be on the surface of the material, or deep-seated within it.
B	How the fuel is contained and its characteristics, such as whether it is polar or non-polar, must be considered, as they can affect how the fire is fought.
C	Extinguishing a gas fire while the gas supply cannot be shut off is generally regarded as dangerous, because of the risk of explosion. Pressurised gas can build up and make an explosion more likely.
D	Metal fires vary so much (the metal involved, its form, how the fire is configured) that no single representative test fire can be defined. Each situation must be assessed on its own.
F	Water directed straight into a deep volume of hot cooking media can cause an explosion and/or splashing of the oil.

Class L

Besides the fire itself, Class L fires can present:

- Venting of hot, explosive gases
- Toxic gases
- Physical obstructions that stop the extinguishing agent reaching the seat of the fire
- Cascading thermal runaway: uncontrollable transfer of heat from one cell to the next
- Hot or burning cells being ejected from the fire source as projectiles
- Exposure to leaking electrolyte
- Stranded energy left in damaged cells after initial firefighting, which can cause re-ignition and an electric shock hazard
- An electric shock hazard from damaged rechargeable lithium-ion batteries that are still connected to a power source

What's changed in the 2026 edition

- New edition ISO 3941:2026 is the third edition of the standard. ISO published it in January 2026, and it replaces the 2007 edition, which has now been withdrawn.
- Five classes become six The 2007 edition sorted fires into five classes. The 2026 edition adds a sixth, Class L, covering fires involving lithium-ion cells and batteries.
- Wider scope The 2007 edition presented the classification as mainly useful for tackling fires with extinguishers. The 2026 edition links it to fire protection and firefighting equipment more broadly.

Reference

BS ISO 3941:2026, *Classification of fires*, © ISO 2026. This data sheet summarises the standard; refer to the published standard for its full wording.