

Fire friendly plastic from Polysource Australia

Some plastics are safer than others in fire situations.

In any fire, it is the smoke that kills the most victims. Once a fire is started, smoke has already taken its toll. Smoke can be made more deadly by chemicals or fumes, and differing plastics vary widely in this regard:

- Polyethylene-Polyethylene is a tough version of candle wax, and emits no additional fumes
- Polyurethane is at the other end of the scale, needing careful monitoring with a fire retardant additive, in risky applications
- **PVC** is a mid range plastic, and is naturally self-extinguishing, but emits irritating fumes. There is also concern that some **Chlorine compounds produced at extremely high temperatures may be carcinogenic**, resulting in the fact that it is not a fire friendly plastic. Many plastic fabricators form, drill and weld PVC sheet for industrial appliances, marine boards and laboratory facilities

The ideal type of plastic in a situation where a fire erupted is a chlorine-free plastic. ABS is chlorine free.

The benefits and features of ABS include:

- ABS offers outstanding rigidity, toughness, impact resistance, surface finish and thermoforming qualities
- ABS sheet an extremely versatile material inside and out
- It's resistance to cracking and impact is higher than PVC, and its density is lower, making it lighter and a more energy efficient material
- ABS is unaffected by constant immersion in water, acids and alkalis
- This particular type of plastic can be machined using the same tools used for wood and metals
- ABS can be easily glued, unlike some other plastics

ABS plastic is used in a variety of applications, such as paneling; appliance castings which need high impact strength; autobody shelving and toys. The fact that it contains no chlorine results in a safer material in the event of a fire breaking out.

For more information on ABS, visit [Polysource Australia](#) .

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