

GYPSUM PROTECTION

Venkat Subramanian discusses the prevention of data loss with Fire Protection Solutions from Saint Gobain Gyproc

Today's enterprise increasingly relies on IT resources for day-to-day operations—not just for corporate communications such as intranets and email, but also for external support such as automated order entry and processing, web-presence and records management in compliance with government regulations. Server downtime may cost a large business millions in lost revenue. The loss of multiple servers and their valuable data can deal a devastating blow from which a company might never fully recover.

Fire is one of the most common disasters to strike corporate data assets, but it is also the most preventable. Most companies think they are well protected, and most believe that fire could never happen to them. Yet a high percentage of businesses involved in a major fire either do not reopen or fail.

Fire protection is achieved through a combination of active and passive fire protection. Active fire protection operates in the shortest possible time after detection of a fire and is often given good importance in building design. It includes equipment such as smoke detection and alarm systems, fire extinguishers and sprinklers. Passive fire protection is the art of compartmentalisation of the fire through the use of walls, floors and ceilings to limit the spread of fire, while ensuring the safe evacuation of people and protecting data so that it can be rescued and the fire put out. Recognising the perils of fire and the consequent importance of using fire resistant materials to minimise damage, the National Building Code (NBC) regulations prescribe stringent fire safety protection norms.

Gypsum-based products and systems provide excellent passive fire protection solutions considering all three elements of fire protection—stability, integrity and insulation requirements of the system—in equal measure. Gypsum contains approximately 21 per cent water content and about 79 per cent calcium sulphate, which is inert below a temperature of



120°C. The bound crystalline moisture in the gypsum content plays a significant role in providing excellent fire-resistance, making gypsum a material of limited combustibility.

Gyproc Fire Protection solutions are achieved through a combination of Gyproc Fireline gypsum plasterboard and Gypsteel ULTRA metal framing systems. The Gyproc Fireline plasterboard is made of a pink paper liner wrapped around an inner core, made primarily from gypsum plaster. Three key factors influence the performance of Gyproc Fireline plasterboards:

- ▶ The quantity of gypsum-board density
- ▶ Board shrinkage—preventing gaps opening between boards or boards pulling away from fixings
- ▶ Board integrity—preventing boards from falling. The inclusion of glass fibres and shrinkage inhibitors of fire-rated products impart much higher fire protection by limiting board shrinkage and improving integrity.

Saint-Gobain Gyproc has a range of drywall solutions branded GypWall Fire Resist which provide 1–4 hour fire protection for walls. These go a long way in ensuring the safety of data and quick recovery time in the event of a fire. ➔

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