

Fire Retardant Intumescent Coating for Steel and GI Duct Applications

Technology in Brief

Steel and GI structural materials when exposed to fire starts losing its structural strength (at temperature above 500o C) leading to risk of collapsing structures. A Fire retardant intumescent paint is a coating that reacts to heat by swelling several times its original thickness, producing a carbonaceous char that act as an insulating layer to protect the substrate.

Salient Features/Advantages

- No flame spread & not easily ignitable.
- Low heat and smoke generation.
- Water based FRIC.
- Environment friendly coating and low cost.
- Optimum char, high thermal stability, non-toxic chemicals used, eco-friendly.



Properties & Standards	Complies to international standards: Ignitability evaluation as per BS 476 Part 5, Fire Propagation Index BS 476 Part 6, Classification of the Surface Spread of Flame of Products as per BS476Part7, Specific optical density as per ASTM E 662
End Product(s)	A fire retardant intumescent coating that insulates the surface of steel and GI at high temperatures
License/Commercialization	1) M/s Ameetuff Technical Paint Industries, Faridabad, Haryana 2) M/s Daurehaft Engineers OPC Pvt. Ltd., Rajouri Garden, Delhi 3) M/s Paramount Int. Continental Pvt. Ltd., New Delhi. 4) M/s Krishna Conchem Products Pvt. Ltd., Mumbai.
TRL	7
Environmental Impact	Low smoke, More egress time, Protects the structure
Setup - Equipment required	Ball Mill and High Speed Mixer
Linkedin video link	https://www.linkedin.com/posts/csircbri_firesafety-innovation-sustainability-activity-7327994612327895040-VKej?utm_source=share&utm_medium=member_desktop&rcm=ACoAAE1ijyABshTzQUwK7Dj8mksi4yko5dgW6LA
Youtube video link	https://www.youtube.com/watch?v=u_9bvpFLqYs