

Intumescent coatings have been around for 25+ years and for many reasons have had little applicability in the aircraft safety arena.

New, “second generation” thin-film active refractory/intumescent coatings have addressed these issues.

Extensive testing has indicated the potential for weight and cost savings while significantly raising the bar on fire protection of aluminum, composites and even magnesium for aircraft safety design.

**“Second Generation” Thin-film
Active
Refractory/Intumescent
Coatings**

101

Old Intumescent are:

Thick & Heavy

Absorb moisture

Fragile & brittle

Produce minimal thermal conductive barrier

Adhere poorly to substrates

May contain ceramic additives

Second Generation Active Refractory/Intumescent are:

Thinner & Lighter

Do not absorb moisture

Durable & Flexible

Produce a thermal conductive barrier of greater proportion

Adhere securely to substrates

Absorb significant smoke and toxic materials

Produce a crystalline barrier that reflects infrared energy

Do not contain ceramics

A close-up photograph of a PyroBlok torch cutting through a metal block. The torch's nozzle is at the bottom left, emitting a bright blue flame. The cutting process creates a large, glowing orange and yellow molten pool that is being ejected upwards and outwards, forming a fan-like shape. The background is a plain, light-colored surface.

PYROBLOK™

BRADFORD INDUSTRIES

Lowell, Massachusetts

























