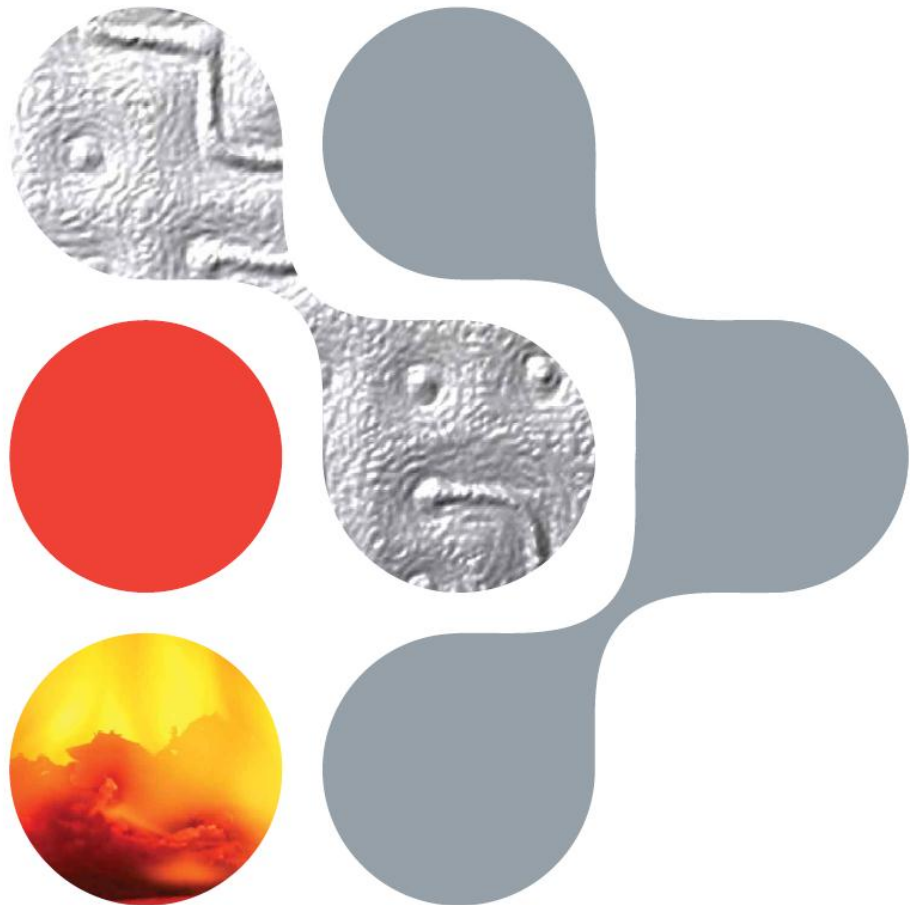


Fire Retardant Systems

Case Study - XF T0294 Vertical Burn Test [UL-94_v]



Johnson Matthey
Colour Technologies

UL94 Vertical Burn Test

Rating	Criteria
V-0	Burning stops within 10 seconds after two applications of ten seconds each of a flame to a test bar. NO flaming drips are allowed.
V-1	Burning stops within 60 seconds after two applications of ten seconds each of a flame to a test bar. NO flaming drips are allowed.
V-2	Burning stops within 60 seconds after two applications of ten seconds each of a flame to a test bar. Flaming drips ARE allowed.

UL94 © Underwriters Laboratories Inc.

Case study video



Technical data

This case study demonstrates the potential of Johnson Matthey XF® Fire Retardant Systems to provide significant test performance improvements in components subjected to UL94 laboratory testing.

UL94 represents the standard for safety of flammability of plastic materials for parts in devices and appliances. This test is used to determine the material's tendency either to extinguish or to spread the flame once the specimen has been ignited.

This case study evaluates the performance of Johnson Matthey XF® Fire Retardant Systems tested in a vertical burn test alongside standard pvc reference sample.

Test criteria

Test conditions

Test samples were prepared by drawing down a 30µ wet film of pvc using an RK print gap applicator. Following curing test strips of each sample were cut from the pvc.

Test strip size = 127mm X 12.7mm
Fuel source - natural gas.

Sample 1

Standard PVC strip

Sample 2

PVC loaded with 43% XF T0294

Each sample test strip was subjected to a 50mm bunsen flame for 2x10 second intervals and observations noted in line with UL94_v ratings.

Results

	First 10 sec burn		Second 10 sec burn		Rating
	Self-extinguishes	Dripping	Self-extinguishes	Dripping	
Sample 1 PVC	5:21 seconds	NO	9:17 seconds	YES	V-2
Sample 2 PVC + XF T0294	0:09 seconds	NO	1:24 seconds	NO	V-0

Application

Johnson Matthey XF® Fire Retardant Systems should be considered whenever an improvement in fire retardancy is required.

Our products can be customised to meet a variety of applications typically; wire & cable, flooring, wall and textile coatings, paints, transparent systems and gel coats.

Please contact us to discuss your specific requirements.



ISO9001: FM 23657
ISO14001: EMS 507805

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