



IG-55 EXTINGUISHANT

APPLICATION

Fike ProInert systems utilise IG-55 inert gas as the extinguishing media as specified in ISO 14520 and NFPA 2001. IG-55 is an inert gas mixture consisting nominally of 50% argon and 50% nitrogen. IG-55 can be used as total flooding fire suppression system protecting hazards against most flammable substances. IG-55 extinguishant is particularly useful where an environmentally acceptable fire extinguishing system is essential, where an electrically non-conductive medium is needed and where people compatibility is necessary. IG-55 extinguishant can be used to protect a wide range of applications from sensitive electrical equipment to industrial applications from sensitive electrical equipment to industrial applications using flammable liquids. Consult Fike's ProInert Design, Installation, and Maintenance Manual, P/N 06-294, and ISO 14520-1 for a list of flammable substances acceptable for protection by IG-55.

DESCRIPTION

IG-55 is a colourless, odourless, electrically non-conductive gas with a density approximately the same as air. (see Physical Properties Table below for additional information).

IG-55 is stored as pressurised gas within the cylinder assembly. It is available at storage pressures of 200 bar and 300 bar. When discharged into a protected space, IG-55 is clear and does not obscure vision. It leaves no residue and has zero ozone depleting potential and zero global warming potential.

PERFORMANCE

IG-55 extinguishes a fire by reducing the residual oxygen concentration to a level that will no longer support combustion. IG-55 is most effective when utilised in total flooding applications where the protected hazard is enclosed, or for protection of equipment that is self-enclosed in order to maintain the agent after discharge.

Because IG-55 does not decompose when extinguishing a fire, there are no toxic or corrosive decomposition products created, other than those that may have been released due to the effects of the fire on the materials within the enclosure. A typical IG-55 total flood system is designed to provide a residual oxygen level between 10% and 15% after discharge from the normal 20% by volume. While the residual oxygen level will not support combustion of most fires, personnel within the space will still be able to breathe normally, allowing sufficient time for egress, providing there are no harmful decomposition products from the materials affected by the fire itself. The lowest oxygen limit acceptable for personnel occupancy over a short period of time is 10%.

APPROVALS



Certification Number 654a

IG-55 Physical Properties

Des cription	IG-55
Chemical Name	N ₂ /Ar
Molecular Weight	33,98
Boiling Point at 1 ATM (1.013 bar)	-190,9°C
Critical Pressure	41,3 bar
Critical Temperature	-134,7°C
Density at 1 ATM at 20°C	1,413 kg/m ³
Relative Density compared to air	1,18
Components	N ₂ 50% by volume Ar 50% by volume

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