

Article 83-2 Dosage of Inert Gas Fire Extinguishing systems shall be provided in accordance with the following regulations:

1. Required dosage shall be calculated by the following equation and approved by central authorities:

$$W = \frac{V}{S} \ln \left( \frac{100}{100 - C} \right)$$

W: Required dosage for the protected space (kg)

V: Net volume of protected space (m<sup>3</sup>, with deduction of volumes of impermeable and immovable solids)

S: the minimum temperature of the protected space (t°C), specific volume at 1 atmosphere (m<sup>3</sup>/kg)

Agent Type	Formula of Specific Volume
IG-100	s=0.7997+0.00293t
IG-01	s=0.5685+0.00208t
IG-55	s=0.6598+0.00242t
IG-541	s=0.65799+0.00239t

C: Design Concentration percentage (% , volume percentage)

2. In case of 2 or more protection areas in a building, the higher value of the required dosage shall apply.