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Fire containment — Elements of building construction —

Part 2: Kitchen extract ducts

Endiguement du feu — Éléments de construction —

Partie 2: Conduits de ventilation de la cuisine

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Foreword

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The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 6944-2 was prepared by Technical Committee ISO/TC 92, *Fire safety*, Subcommittee SC 2, *Fire containment*.

ISO 6944 consists of the following parts, under the general title *Fire containment — Elements of building construction*:

— *Part 1: Ventilation ducts*

— *Part 2: Kitchen extract ducts*

Introduction

The purpose of this part of ISO 6944 is to measure the ability of a representative duct or duct assembly that is part of a kitchen extract duct system to resist the spread of fire from one fire compartment to another with the fire attack being from either the inside of the duct or from the outside of the duct. This part of ISO 6944 is applicable to vertical and horizontal ducts, with or without branches, taking into account joints and exhaust openings, as well as suspension devices and penetration points.

The test method representing a fire attack from the inside of the duct first simulates temperatures within a kitchen extract duct during normal operation followed by simulating the temperatures during a fire within the duct. For kitchen extract ducts, the inevitable build-up of grease on the inside surfaces can lead to a severe fire exposure and this is represented in the test method described in this part of ISO 6944. A burner assembly, attached to a horizontal L-shaped combustion chamber, develops the heat required to obtain the temperatures. The combustion chamber is attached to the sample kitchen extract duct assembly. The kitchen extract duct is also L-shaped with both horizontal and vertical components.

The test method representing a fire attack from the outside of the duct exposes the kitchen extract duct to furnace conditions defined in ISO 834-1. The test method includes provisions for assessment of the penetration seal surrounding the kitchen extract as the duct passes through a fire resistive barrier. The test method evaluates the structural integrity of the kitchen extract duct by having the duct restrained within the furnace during the fire exposure.