

**PAS 1018:2017**

Indirect, temperature-controlled  
refrigerated delivery services –

Land transport of refrigerated parcels  
with intermediate transfer – Specification



Licensed copy: Lewis, John - ISO Exchange - Michigan, Version correct as of 07/03/2017

Currently in preview, click buy full version

### **Publishing and copyright information**

The BSI copyright notice displayed in this document indicates when the document was last issued.

© The British Standards Institution 2017. Published by BSI Standards Limited 2017.

**ISBN** 978 0 580 91986 2

**ICS** 03.220.20, 03.240, 27.200, 43.080.10

*No copying without BSI permission except as permitted by copyright law.*

### **Publication history**

First published February 2017

# Contents

Foreword .....	ii
0 Introduction .....	iv
<b>1 Scope .....</b>	<b>1</b>
<b>2 Terms and definitions .....</b>	<b>2</b>
<b>3 Refrigerated delivery service definition and communications .....</b>	<b>6</b>
<b>4 Business licence for refrigerated delivery service providers .....</b>	<b>9</b>
<b>5 Transport network .....</b>	<b>9</b>
<b>6 Refrigerated parcels .....</b>	<b>12</b>
<b>7 Information exchanged between the refrigerated delivery service provider and the delivery service user .....</b>	<b>15</b>
<b>8 Information exchanged between the refrigerated delivery service provider and the recipient .....</b>	<b>16</b>
<b>9 Conditions for operation sites, refrigerated vehicles, cold stores and cooling materials .....</b>	<b>17</b>
<b>10 Work instructions and operational manuals .....</b>	<b>21</b>
<b>11 Staffing .....</b>	<b>24</b>
<b>12 Monitoring and improving the refrigerated delivery service .....</b>	<b>25</b>
<b>Annexes</b>	
Annex A (informative) Considerations for the transport of refrigerated parcels containing foodstuff .....	27
Annex B (normative) Refrigerated delivery service classification type .....	29
Bibliography .....	30
<b>List of tables</b>	
Table B.1 – Temperature monitoring .....	29
Table B.2 – Temperature recording .....	29



# Foreword

This PAS was sponsored by Yamato Holdings Co., Ltd. Its development was facilitated by BSI Standards Limited and it was published under license from The British Standards Institution. It came into effect on 28 February 2017.

Acknowledgement is given to Makito Okabe as the technical author and the following organizations that were involved in the development of this PAS as members of the steering group:

- BSI Consumer & Public Interest Network
- Cambridge Refrigeration Technology
- Cold Chain Logistics Committee of China Federation of Logistics & Purchasing
- Dearman
- Food Storage & Distribution Federation
- Hitotsubashi University, Japan
- Ideaspeak International
- Japan Association for Logistics and Transport
- Japan Direct Marketing Association
- Japan Post Co. Ltd.
- London South Bank University, Centre for Air Conditioning and Refrigeration Research, United Kingdom
- National Kaohsiung First University of Science and Technology, Taiwan
- Nichirei Logistics Group Inc.
- Ocado
- Paneltex Ltd.
- President Transnet Corporation
- Sagawa Express Co., Ltd.
- The Japan Frozen Food Association
- The Japan Institute of Logistics Systems
- The Japan Refrigeration and Air Conditioning Industry Association
- Yamato Holdings Co., Ltd.

Acknowledgement is also given to the members of a wider review panel who were consulted in the development of this PAS.

The British Standards Institution retains ownership and copyright of this PAS. BSI Standards Limited as the publisher of the PAS reserves the right to withdraw or amend this PAS on receipt of authoritative advice that it is appropriate to do so. This PAS will be reviewed at intervals not exceeding two years, and any amendments arising from the review will be published as an amended PAS and publicized in *Update Standard*.

This PAS is not to be regarded as a British Standard. It will be withdrawn upon publication of its content in, or as, a British Standard.

The PAS process enables a specification to be rapidly developed in order to fulfil an immediate need in industry. A PAS can be considered for further development as a British Standard, or constitute part of the UK input into the development of a European or International Standard.

**Certification/inspection/testing.** Users of this PAS are advised to consider the desirability of third-party certification/inspection/testing of conformity with this PAS. Users seeking assistance in identifying appropriate conformity assessment bodies or schemes may ask BSI to forward their enquiries to the relevant association.

**Test laboratory accreditation.** Users of this PAS are advised to consider the desirability of selecting test laboratories that are accredited to BS EN ISO/IEC 17025 by a national or international accreditation body.



YAMATO HOLDINGS CO., LTD.

## Use of this document

It has been assumed in the preparation of this PAS that the execution of its provisions will be entrusted to appropriately qualified and experienced people, for whose use it has been produced.

## Presentational conventions

The provisions of this PAS are presented in roman (i.e. upright) type. Its requirements are expressed in sentences in which the principal auxiliary verb is "shall".

*Commentary, explanation and general informative material is presented in smaller italic type, and does not constitute a normative element.*

Any website URLs cited in the PAS are provided as additional information only and are correct at the time of publication.

## Contractual and legal considerations

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

**Compliance with a PAS cannot confer immunity from legal obligations.**



# 0 Introduction

## 0.1 Why develop PAS 1018?

In recent years there has been a growth in temperature-controlled refrigerated delivery services in response to the growing need to deliver temperature-sensitive goods in the form of chilled parcels and frozen parcels. Such temperature-controlled refrigerated delivery services have been modelled on typical postal and distribution services.

These specific types of temperature-controlled refrigerated delivery services have been available in Japan since the 1980s for individual parcel use through gift and mail-order businesses, for example, and have contributed to the ability of producers of agricultural and fishery products to expand their businesses and increase their sales channels.

Temperature-controlled refrigerated delivery services can provide an affordable option for individuals and small businesses wishing to send chilled parcels and frozen parcels on an individual and/or small-scale basis without the need to separately package each parcel with specialist packaging and bulky cooling materials, or without entering into a larger bulk transport agreement within dedicated refrigerated transport.

As a result of the global trend towards more online trading, and a greater demand from the agricultural and fishing industries for individual and small business online sales and purchases, a number of countries outside of Japan, such as Taiwan, Singapore, Malaysia and China have started to implement temperature-controlled refrigerated delivery services of this nature. There is an expectation of further growth of refrigerated delivery services across more countries and there is therefore a recognized need for the refrigerated delivery services to develop industry standards and good practice in this area.

## 0.2 What are the aims of PAS 1018?

PAS 1018 aims to set out the requirements for refrigerated delivery service providers in order to improve the quality and consistency of their refrigerated delivery services for both receiving small-scale refrigerated parcels and sending them through the refrigerated delivery service. The information that the refrigerated delivery service provider is required to give the delivery service user by PAS 1018 (see Clause 3) could help the delivery service user to make a more informed choice when selecting a temperature-controlled refrigerated delivery service, and could overall improve consumer trust in using such refrigerated delivery services.

As a first attempt to standardize this particular area of industry, it is important to recognize that there are a number of challenges in producing a PAS with which every party can be entirely satisfied. The aim of the PAS, and those involved in its drafting, development and review, has been to produce a consensus-based document in a currently unstandardized area of industry with the expertise of key stakeholders. In line with the PAS development process, PAS 1018 can be reviewed two years after publication, and, if appropriate, it can be considered for revision and improvement using any additional knowledge and feedback that is provided from those who have used, or have a peripheral interest in the PAS within industry.

### 0.3 How has PAS 1018 been developed?

Refrigerated delivery services conforming to PAS 1018 can allow a delivery service user to consider the temperature of their refrigerated parcel and then to choose a refrigerated delivery service that offers a suitable corresponding service transport temperature. They could then send that refrigerated parcel to a recipient in the same way that they would send an ambient temperature parcel to a recipient through a postal service. The requirements within PAS 1018 focus on the service provided by, and the processes for, temperature control within the refrigerated delivery service offered. The exact temperature of the refrigerated delivery service offered, and the terms and conditions for refrigerated parcels carried, are decided by the refrigerated delivery service provider. Temperatures and terms and conditions are also likely to differ depending on the country within which the refrigerated delivery service is operating and therefore are not covered by the PAS.

It is also important to note that in PAS 1018, the requirements focus on the temperature control of the service provided by the refrigerated delivery service providers, rather than the temperature of the refrigerated parcels themselves. Many of the refrigerated delivery services that PAS 1018 aims to cover offer refrigerated delivery services for small-scale use or single use by the general public, rather than large-scale commercial operations. Within such small-scale or single use refrigerated delivery service operations, it might not always be possible, or necessary, to open each refrigerated parcel in order to monitor its temperature, as this would most likely expose the contents of the refrigerated parcel to the external environment, thereby increasing the risk of contamination and possible damage. Certain refrigerated delivery services might need to apply some additional requirements that fall outside of the PAS (these might include temperature measuring of the refrigerated parcels themselves – see also 0.4) but in such instances it is the responsibility of the refrigerated delivery service provider to find out what these are and implement them as appropriate.

### 0.4 How does PAS 1018 affect refrigerated delivery service providers specifically providing indirect refrigerated delivery services for food?

It is recognized that some products for carriage (for example, specific foods) might fall under legislation within some countries, and attention is drawn to the need for refrigerated delivery service providers to be aware of relevant legislation and legal responsibilities for either themselves or their delivery service users. It is important to note that PAS 1018 covers general refrigerated delivery services that could accept a range of refrigerated goods for delivery (depending on their defined terms and conditions) and are not specific to, or exclusively for, the delivery of refrigerated food and food products. It is also acknowledged that different countries might also have different legal definitions for either refrigerated delivery services or for the transport of food in terms of transport conditions and/or the temperature or type of chilled and frozen food or food products. The PAS does not, and cannot, conflict with legislation, and for this reason precise temperatures for chilled and frozen have not been defined within its requirements, and, where applicable, attention has been drawn to the need to refer to any relevant legislation.

Where a refrigerated delivery service provider is specifically providing indirect refrigerated delivery services for temperature-sensitive or refrigerated food, relevant government departments, trade associations and professional bodies within the country of business can often be consulted to provide advice, guidance and particular requirements regarding the operation of indirect refrigerated delivery services for food within that particular jurisdiction.<sup>1)</sup> Perishable foodstuffs can be a particularly sensitive area, and it might be useful to consult a document such as the United Nations ATP publication, the *Agreement on the International Carriage of Perishable Foodstuffs and on the Special Equipment to be Used for such Carriage* [1], which has been developed and adopted by a number of countries, for further guidance and/or applicability for such specialist temperature-controlled refrigerated delivery services. The Codex Alimentarius (the “Food Code”), which was established by the Food and Agriculture Organization of the United Nations (FAO) and the World Health Organization (WHO) might also provide relevant international standards regarding food.<sup>2)</sup>

<sup>1)</sup> At the time of publication, further information regarding General Food Laws in the United Kingdom can be found on the Food Standards Agency website, <https://www.food.gov.uk>.

<sup>2)</sup> For further information and to download the Codex Alimentarius, refer to the website: <http://www.fao.org/fao-who-codexalimentarius/en>. This link is correct at the time of publication.

Licensed copy: Lewis Poole, ISO Exchange - Michigan, Version correct as of 07/03/2017.

Currently in preview, click buy full version

*This page is deliberately left blank.*

# 1 Scope

This PAS specifies requirements for the provision and operation of indirect, temperature-controlled refrigerated delivery services for refrigerated parcels (which might contain temperature-sensitive goods) in land transport refrigerated vehicles. It includes all refrigerated delivery service stages from acceptance (receipt) of a chilled or frozen parcel from the delivery service user, through to its delivery at the designated destination, including intermediate transfer of the refrigerated parcels between refrigerated vehicles and via a geographical routing system. This PAS also includes requirements for resources, operations and communications to delivery service users. It is intended for application by refrigerated delivery service providers.

PAS 1018 does not cover requirements for refrigerated parcel delivery via modes of transport such as airplane, ship or train. It also does not cover separate requirements for refrigerated parcels that may be transported in ambient temperatures due to the fact that they contain their own refrigeration materials (e.g. ice packs, refrigerated foam bricks, dry ice blocks) and are surrounded and enclosed by sealed thermoprotective packaging that creates a separate refrigerated climate to that provided within the delivery service. However, these types of refrigerated parcels may be transported through a refrigerated delivery service.

This PAS does not cover direct refrigerated courier services in which chilled parcels and frozen parcels are collected from the delivery service user and transported directly to a recipient without in-transit transfer. It does not cover requirements for the quality or specifically for measuring the temperature of the contents of the chilled parcels or frozen parcels being delivered and their pre- and receipt state, but does set the requirements for the refrigerated delivery service carrying them. It also does not cover the transport of medical devices and medical equipment.

## COMMENTARY ON SCOPE

*Resources covered by PAS 1018 requirements include facilities, refrigerated vehicles, cold stores, and staff members.*

*The PAS is not limited to covering specific sizes of vehicle, as long as the performance requirements can be met. Land transport refrigerated vehicles which are conveyed in a ship as roll-on/roll-off vehicles are covered by the PAS.*

*While this PAS does not cover requirements directly relating to the quality or safety of the refrigerated parcels being delivered, attention is drawn to specific country legislation that might require a refrigerated delivery service provider to adhere to additional requirements outside of the PAS, such as monitoring the temperature of the refrigerated parcel itself, or specific requirements regarding the segregation of different types of refrigerated parcel. It is important to note that the contents of refrigerated parcels referenced within this PAS are not limited to edible or perishable products. Medical devices and medical equipment might be subject to specific legislation and require specific transport requirements, and are therefore excluded from the scope of PAS 1018.*

