

From the Ministry of Agriculture and Rural Affairs

**Regulation on
Marking Wood Packaging Material for Phytosanitary Measures**

**PART ONE
Objective, Scope, Legal Basis and Definitions**

Objective

Article 1- This Regulation identifies the procedures and principles of the structure to be established to prevent the introduction, transfer and/or spread of pests with wood packaging material, associated with the Guidelines for Regulating Wood Packaging Material in International Trade, published in June 2002 by the Food and Agriculture Organization of the United Nations, to which Turkey is also a party.

Scope

Article 2- This Regulation covers the subjects concerned with the establishment of marking standards of wood packaging material and permission to use marks showing that the producers of wood packaging material are in compliance with the requirements provided for in relation to phytosanitary security, after heat treatment or methyl bromide application to prevent transfer and spread of pests in domestic and international circulation of wood packaging material.

Legal Basis

Article 3- This Regulation is based on the Law on Plant protection and Agricultural Quarantine dated 15/5/1957 and No. 6968 and the Guidelines for Regulating Wood Packaging Material in International Trade, ISPM No: 15, published in June 2002 by the Food and Agriculture Organization of the United Nations.

Definitions

Article 4- Within the scope of this Regulation, the following terms have the meanings specified hereunder:

a) Ministry: The Ministry of Agriculture and Rural Affairs;

b) General Directorate: The General Directorate of Protection and Control;

c) Directorate: The Provincial Directorate of the Ministry and the Agricultural Quarantine Directorate of the Ministry;

d) Pest: Live organisms, insects, fungi, bacteria, viruses and other pathogens in the wood or in the tree from which the wood is obtained;

e) Fumigation: The process of destruction of pests in plants, plant products, industrial and forest plant products, at any biological stage, using solid, liquid or gaseous pesticides effective in the gaseous state;

f) Fumigation area: The area neighbouring the location where fumigation is carried out, which bears danger for life;

g) Fumigation minutes: The document drawn up and signed by the fumigation operators and the representatives of those who request fumigation;

h) Fumigation operator: The agricultural engineers who have been trained within the in accordance with the principles specified in the Regulation on Agricultural Quarantine Fumigation, enforced as per the Ministerial Approval dated 25/9/2001 and No. 156 and the competency in fumigation of who have been certified by the Ministry,

i) Fumigation Licence: The document issued to real and judicial persons and establishments that carry out fumigation for commercial purposes in accordance with the technical specifications identified by the Ministry and the principles specified in the Regulation on Agricultural Quarantine Fumigation, enforced as per the Ministerial Approval dated 25/9/2001 and No. 156,

j) Heat Treatment (HT): The process in which wood packaging material is heated until it reaches a minimum temperature for a minimum period of time according to the technical specification. It covers heating all wood packaging material for at least 30 minutes at minimum 56 C° wood core temperature,

k) Processed wood packaging: Packaging comprising wood products completely, such as plywood, chipboard, oriented strand board or veneer obtained by applying a process involving glue, heat and pressure, or any combination thereof,

l) Debarked wood (DB) : Wood from which the surrounding bark has been removed,

m) Wood packaging material: Wood or wood products used in supporting, protecting or carrying a commodity (includes palette),

n) Commodity: A plant species, plant product, or other article being moved for trade or other purposes,

o) NPPO: National Plant Protection Organization,

p) ISPM 15 Standard: The standard that manifests in international trade the compliance of wood packaging material after being treated by fumigation with heat treatment or methyl bromide,

r) Kiln drying (KD): A process in which wood is dried in a furnace using heat and/or humidity control to achieve a required moisture content,

s) Wood packaging material marking programme: The considerations pertaining the wood packaging material referred to in this Regulation,

t) **MB:** The fumigation treatment carried out using methyl bromide (CH₃Br).

PART TWO

Requirements, Granting Authority and Approval

Requirements Sought in Wood Packaging Material Used in Products Imported

Article 6- In compliance with ISPM 15 Standard, wood packaging material should be:

- a) Debarked,
- b) Subjected to fumigation by heat treatment or methyl bromide,
- c) Marked in compliance with ISPM 15 Standards.

Material that does not meet these requirements is destroyed, charges being borne by the importer, or is subjected to fumigation or heat treatment, or returned to its source.

Requirements for Granting Approval to a Firm to Use the HT Mark

Article 8- Requirements for granting heat treatment authorisation are as follows:

- a) If the wood packaging material supplier is abroad, the industrial or manufacture document indicating that the wood purchased has been subjected to heat treatment in accordance with its species and country of origin and the phytosanitary certificate shall be submitted. In addition, a physical inspection of the HT marked wood in the storehouse of the firm shall be carried out.

The importer shall submit the document proving the heat treatment during importation.

- b) When the applicant desires to use the DB mark together with the HT mark, it must submit documents related to industrial and phytosanitary certificates to show that the wood purchased has been debarked as well as heat treated. As an alternative, the manufacturer must show that the wood has been subjected to a suitable inspection before usage and that all measures have been taken to discard all barked pieces and to take off the bark.
- c) The timber, lumber and wood intended for importation shall meet the related specifications and requirements of the Regulation on Agricultural Quarantine, dated 06.07.2003 and No. 25160.

Requirements for Granting Approval to a Firm to Use the MB Mark

Article 9- For wood packaging material, concerning phytosanitation, it has been accepted that only fumigation using methyl bromide is effective against pests at all stages of development.

The requirements for fumigation with methyl bromide to be met before a firm is approved to use the MB or the DB-MB marks are as follows:

- a) If fumigation is to be carried out by the firm that produces the wood packaging material, the firm must employ at least one fumigation operator who has a methyl bromide implementation certificate and who has been authorised by the Ministry. In addition, all specifications and requirements of the Regulation on Agricultural Quarantine, dated 06.07.2003 and No. 25160, concerning fumigation should be met.
- b) If the firm producing wood packaging material intends to have the fumigation operation carried out by another firm having a Fumigation Licence, this producer firm must have available the business transaction made with fumigation firm, invoice and a copy of the fumigation completion form (Annex-5).
- c) The fumigation operator shall draw up the fumigation completion form given in Annex-5 following every fumigation operation.

PART THREE Institutional Structures

Examination and Inspection

Article 10- The inspection members who will carry out on-site examination and inspection shall be the technical personnel of the Ministry and the Ministry of Environment and Forestry, related with the subject. Each inspection related with the applications is carried out by three technical personnel. In such inspection, the following items shall be taken into account:

- a) The source and species of wooden material used, and whether it has been processed or not,
- b) Operational methods implemented in the establishment (eg, heat treatment or fumigation), the volume of wood processed and the probability of the establishment,
- c) The intended purposes of use of the packaging material produced; for example, within Turkey, importation to the European Union or to third world countries,
- d) The storage areas used to separate the material for production of marked packaging from the unmarked material,
- e) The records of the raw materials purchased and the packaging material produced.

The assessment report prepared is submitted to the authorised commission.

PART FOUR Marking System, Points to Be Taken into Account in Marking

Marking System

Article 13- The standard mark bears the following information (Annex-1):

- a) The mark which is a two-character country code and the three digit manufacturer code.
- b) DB-HT or DB-MB which is the related operation code.

- c) Standard ISPM 15 Mark.

Points to Be Taken into Account in Marking

Article 14- The following points are to be taken care of in marking:

- a) The mark should be placed on one perpendicular surface, preferably two, so that it is not obstructed when the material is packaged.
- b) The mark shall be sufficiently large to be read readily.
- c) The mark shall be permanent and must be taken off without damaging it.
- d) The mark must be any colour other than red and orange.
- e) The mark may bear other information, provided that such information is not complicated, misleading or wrong.
- f) If additional information has to be added, these include manufacturer's lot number or information on the name and logo of the firm.

PART FIVE

Heat Treatment, The Requirements Sought in Heat Treatment Facilities and the Verification Procedures for a Facility to Conduct Heat Treatment

Heat Treatment

Article 15- All wood and packaging material made of wood must be heated at least at 56 °C core temperature for at least 30 minutes. The purpose of subjecting wood packaging material is to eliminate quarantine pests and disease factors.

The Requirements Sought in Heat Treatment Facilities and the Verification Procedures for a Facility to Conduct Heat Treatment

Article 16- During a necessary typical drying process, that is, during processes in which conventional amounts of palette or sown timber are used, it is necessary that the core temperature of wood be measured at various points of the timber pile and that this procedure is repeated. Unless the results from the first trial deviate suspiciously, one trial is enough. If it can be shown that the other heat treatment chambers in the same facility (for establishments having more than one heat treatment chamber) have the same control system, the same boiler, geometry and specifications, these shall be approved for heat treatments just like the chamber that has passed the 13-measurement test. In an establishment with multi chambers, the criteria to assess whether the other chambers have the same geometry and similar properties as the chamber that has passed the 13-measurement test are given in Annex-3. However, one measurement from every pile shall be taken for continuous control from all chambers just as the measurement taken from the chamber being subjected to the 13-measurement test.

Duration and Application of Temperature Tests

Article 17- For the purpose of granting the authority to use the HT component of the mark on wood packaging, to ensure the conditions provided for normal heat treatment or drying cycles in the furnace, it is necessary that duration and temperature tests are conducted. This mark indicates that the wood core temperature has been maintained at 56 °C at least for 30 minutes for every component that the mark covers.

Temperature measurements

Article 18- Temperature measuring devices are placed at various points in the timber pile and the temperatures at the centre and corners of the pile are recorded. According to the diagram given in Annex-2, at least 13 temperature measurements must be taken for a pile. The responsibility for recording the temperatures and providing the monitoring equipment is borne by the firm being assessed. In the 13-measurement tests the following criteria must be met:

- a) The sizes (length, height and width) and species of the wide timber palette blocks must be given. In case the heat treated palettes are not fabricated palettes, such sizes must indicate the details of the length of wood in the palettes.
- b) Certificated and calibrated data recording equipment (such as K-type Thermister meters or similar steel probed kinds) must be used.
- c) The temperature measuring devices must be placed in holes opened to the centre of wood (the shortest distance from the centre and perimeter of wood). If metal probed temperature measuring devices are not being used, each hole is filled with a heat resistant substance so that the core temperature measurement is not affected by ambient temperature. The holes must not be larger than that is sufficient to enclose the diameter of the measurement device.
- d) Where metal probed temperature measuring devices are used, the diameter of the temperature measuring device (for example, 4.0 mm) must be slightly smaller than that of the hole opened (4.2 mm). The properties of the temperature measuring device may make it unnecessary to re-fill the hole and may ensure the measurement of the core temperature. The length of the temperature measuring device must be consistent with the depth/section being measured.
- e) It is necessary to avoid drilling holes near nails since the heat transfer occurring along the nail will impair the accuracy of the temperature being recorded by the temperature measuring device.
- f) The positions of the temperature measuring devices shall strictly comply with the specified positions in the diagram given in Annex 2. The thermometers must be numbered according to this diagram. It is essential that the numbered temperature measuring device is at exactly the same position in each operation.
- g) The initial test and the verification test of the timber must be the same with respect to species, size and volume.

- h) The details of the species of the wood being tested must be indicated. If composite blocks are being used in a pile consisting of fabricated palletes, it is necessary to take measurements from only wood plates. If a mixture consisting of composite and solid wood has been used in manufacture, complete composition of the palletes must be described.
- 1) The details of wet and dry temperatures, the direction of the fan and the air speed must be indicated and whether aeration is implemented in the drying furnace must be confirmed. During the test, data must be taken at least once every 30 minutes until the temperature measuring device in the timber in the least heated part of the chamber shows a core temperature of 56 °C. Thus, an idea is obtained on the temperature accumulated in the air in the chamber and in the wood itself. Heat accumulation depends on ambient air temperature (winter/summer), the thickness and temperature of the wood, the temperature and humidity of the chamber, etc. For a given chamber temperature, the more is the relative humidity, the more is rate of diffusion of heat to the core of the wood. The essence of the operation is to heat the wood as quick as possible without significant drying; otherwise, cracks and damages may occur. To ensure these conditions, the reduction in wet temperature and the difference between wet and dry temperatures must not exceed 5 °C. the variance in heat formation will be specific to the chamber and will give a good idea of the chamber performance. For verification purposes, the data of the measurements in re-inspection must be used.
- j) The results of the assessment of the first 13 measurements are delivered to the inspecting members with a software package.

Continuous Monitoring Following the 13-Measurement Test

Article 19- The following procedures are carried out after the 13-measurement test:

- a) It is mandatory that in each operation continuous operation is carried out by a temperature measuring device placed in the most dense timber piece in the part of the chamber that heats up most slowly, as specified in the initial 13-measurement test.
- b) If fabricated palletes are to be subjected to heat treatment, the temperature measuring devices should be replaced perpendicular in the block (if solid wood) and contact with nails should be avoided. If composite blocks are being used, the plate with the widest cross-section should be used. In plates, holes are drilled on the sides and measurements are thus taken.
- c) K Type, 4.0 mm Thermister metal probed temperature measuring devices or equivalent should be used.
- d) In each operation, air temperature/dry temperature must be recorded and the records must be kept for inspection.
- e) The measurement device and the data recorder equipment are calibrated annually by a body approved by the Authorised Official Institutions. Calibration certificates are maintained and are submitted to the inspecting personnel in inspections.

- f) The operation systems operating locally in the heat treatment facilities must be put in written form and must be submitted to the inspectors during assessment visits. The Commission will not specify the content of these, but the instructions of this content related to adjustment of the furnace parameters shall cover adjustment of HT penetration meters measuring the core temperature, adjustment of HT operation data recorder, the end point of the HT operation and data recording and re-call operations.

Approval to Use DB-HT Mark

Article 20- At the end of these tests, the inspecting members must be satisfied about the test method and the test equipment and examining the test records obtained, they must be convinced that all the wood sizes tested and if applicable, the species of woods reached a minimum core temperature for at least 30 minutes. In addition, if applicable, the applicant must have convinced the inspecting members that the special mark can be given, above all reasonable doubts. When the inspecting members are convinced, they submit their assessment report indicating that the use of the HT mark is permitted for the material subjected to heat treatment in compliance with the process used (for example, chamber, maximum wood thickness, wet/dry temperatures, process duration and the like) to the Authorised Commission. If applicable, if during the test there are no evidences showing that the requirements provided for larger sized woods or wood species are met, approval for using the mark is not granted.

Pending or Cancellation of the Authority to Use the DB-HT Mark

Article 21- If the inspecting members determine during their inspection that the necessary conditions to verify that heat treatment is conducted in compliance with the requirements specified in ISPM 15 have not been realised, the usage of the DB-HT mark is pended or cancelled depending on the nature of the violation. Additionally, the inspecting members request that the marks on all marked products or in any marked product in the premises are erased or treated according to the standards.

PART SIX

Implementation of Fumigation, Persons and Establishments to Carry out Fumigation

Implementation of Fumigation

Article 22- Wood must be fumigated under atmospheric pressure with the following methyl bromide rates. The fumigation treatment must be documented by filling out the Fumigation Completion Form (Annex-5).

Temperature	Dosage Rate	Minimum concentration (g/m ³)			
		0.5 hrs.	2 hrs.	4 hrs.	16 hrs.
21 °C or above	48	36	24	17	14
16 °C or above	56	42	28	20	17
11 °C or above	64	48	32	22	19

Official Institutions and Real and Judicial Persons and Establishments

Article 23- The official institutions to carry out fumigation operation must have the necessary requirements specified in Article 13 of the Regulation on Agricultural Quarantine Fumigation, enforced by the Ministerial Approval dated 25/9/2001 and No. 156, and the real and judicial persons and establishments must have the necessary requirements specified in Article 14 of the same.

Inspection

Article 24- The inspecting members assigned by the Authorised Commission inspect the persons or establishments given permission to use the logo by the ISPM 15 committee. The conclusions arrived at as a result of the inspection are recorded in the notary endorsed inspection logbook of the premises. A period of at least 3 months is given to correct the deficiencies. The persons or establishments that have not completed the necessary works at the end of this period are warned. If the corrections are not completed within one month, the logo authorisation of the person or establishment is suspended.

In the future years, after a legal infrastructure is established, the authority to inspect will be given by the Ministry to private companies having the necessary information, equipment and expert personnel on this subject.

PART SEVEN Penalty Provisions

Penalty Provisions

Article 25- Those who do not comply with this Regulation are given penalty as per the provisions of the Law on Plant Protection and Agricultural Quarantine, No. 6968.

PART EIGHT Final Provisions

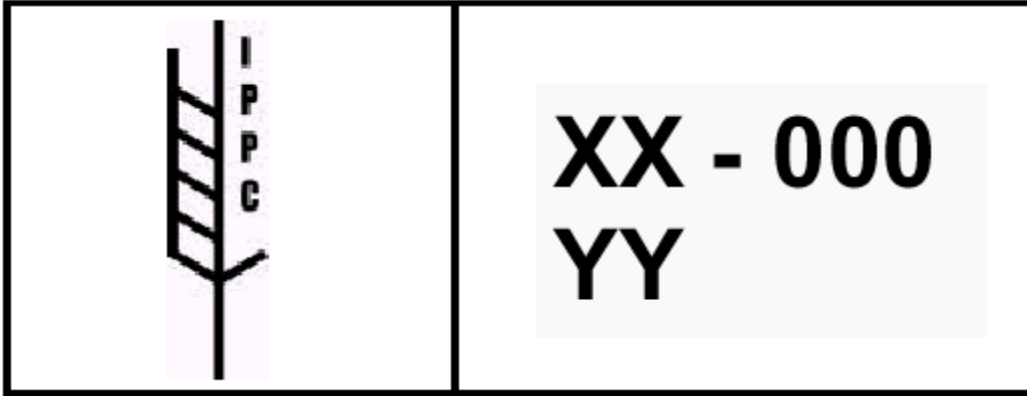
Enforcement

Article 26- This Regulation enters into force on its date of publication.

Execution

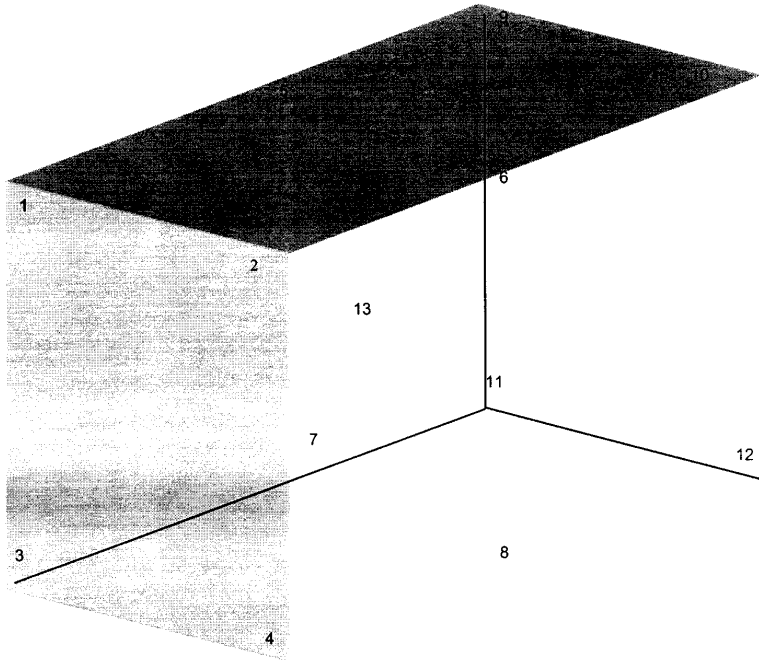
Article 27- This Regulation is executed by the Ministry of Agriculture and Rural Affairs.

ANNEX-1
Approved IPCC Mark



ANNEX-2

File Plan, for example timber file showing the position of the measuring device



Number of Measuring Device	Position of Measuring Device
1	Top
2	Top
3	Bottom
4	Bottom
5	Top
6	Top
7	Bottom
8	Bottom
9	Top
10	Top
11	Bottom
12	Bottom
13	Centre

ANNEX-3
Assessment Criteria for Other Chambers in Multi-Chamber Facilities

The sizes of the drying furnace

- Length (..... mm)
- Height (front mm, rear mm)
- Width (..... m)
- Position of the ceiling above the pile (refer to the diagram if possible)
- Position of the fans (refer to the diagram if possible)
- Position of the heaters (refer to the diagram if possible)
- Position of the air outlets (refer to the diagram if possible)
- The type of material used for the wall of the drying furnace (.....)
- The type of isolation used in the wall of the drying furnace (.....)

Drying Furnace Operations

- Fan capacity (Fan number = Total = kW)
- Existing heating capacity (.....)
- Common boiler system (Exists/Non-existent)
- Type of heating elements (.....)
- Type of air outlets (No and type, plus the number of impeller vacuum dampers, if applicable)
- Type of control system (.....)
- Control sensors of the drying furnace

Type (Wet/Dry temperature sensors)

- Number and position (Number of wet/dry temperature stations = see the diagram for position)
- Is it for feedback control? (Yes – only for monitoring, alarm, etc or No)

ANNEX-4

HT FACILITY OPERATIONAL SYSTEM

The purpose of the operational system of the facility is to ensure that those responsible for carrying out the heat treatment and for maintaining its continuity understand and perform the process correctly. An important component of the process is to ensure suitable data and details that support the traceability of all the HT timber and Wood Packaging Material from the consumer to the source.

Detailed procedures concerning the following business areas and other business areas deemed suitable by the heat treatment establishment will be determined:

1. Packaging of the timber or Wood Packaging Material to be subjected to heat treatment
2. Processing of the timber or Wood Packaging Material to be subjected to heat treatment in approved chambers
3. Adjustment of chamber parameters
4. Adjustment of heat diffusion for measurement of core temperature
5. Preparation of data recorder equipment for heat treatment process
6. Determining the end point of the heat treatment process
7. Marking/Labelling the timber
8. Storage of the timber subjected to heat treatment
9. Recall, recording and keeping period of the data

ANNEX-5

FUMIGATION COMPLETION FORM

Lot Register No.....

To Whom: (the company requesting
_____ MB fumigation)

From Who: _____

This document has been completed in compliance with the standards for methyl bromide fumigation, in parallel with the report of the inspecting members, a copy of which was given to the fumigation operator before the fumigation processes, the details of which are given below, was started. I declare that additionally the operation, the details of which are given below is correct and that in case it is not deemed to be compliant with the standard specifications, the Authorised Commission may request it repeated.

(Signature)
(Fumigation Operator)

Details of the Commodity

Palette Case/chest/barrel, etc Cut wood Hard wood Soft wood Species (if known)

Are the timber packages or packaging materials as “bars” with air gaps between each layer?
Yes No

If “No”, are supports placed on the ground level and between each layer?
Yes No

Marks/ Lot numbers _____ P coefficient/Volume (m³) _____

Place where fumigation is carried out (courtyard/barracks/container, etc.) _____

Details of fumigation

Sizes of the fumigation area (m) Length Width Height Volume (m3)

Mass of methyl bromide used (kg): initially : addition(s) @ 30 min.: @ hrs
 @ hrs; @ hrs; @ hrs

Duration: Starting Date __/__/____ Completion Date __/__/____

Starting time _____ Aeration period _____ hrs. Completion Time _____

Type and thickness of the gas impermeable cover _____

Duration of use of the circulation fans – ON ___ hrs. OFF ___ hrs. Number of fans. ___

Heating Time - OB _____ hrs. OFF _____ hrs