



Tama Plastic Industries  
Kibbutz Mishmar Haecmek 19236  
Att: Mrs. Evelyn Mueller-Lyn  
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23/5/2013

Ms,

Re: Extractive tests according to FDA and Israeli standard 5113  
From WHITE PALLET NET intended for wrapping pallets  
manufactured by "TAMA Plastic Industries"  
Our code TAMA39E

**Description of samples:** WHITE PALLET NET intended for wrapping pallets made from LLDPE manufactured by "TAMA". The samples were selected and delivered to the Packaging Laboratory by the client.

**Purpose of tests:** To evaluate the suitability of the net to come in contact with pallets and food products according to FDA, Code of Federal Regulations Title 21.

**Method of tests:** The tests were done according to:

1. FDA, Code of Federal Regulations 21 & 177.1520: Olefin polymers.
2. & 176.170, Table 1: Types of Raw and Processed Foods, and Table 2: Test Procedures with Time Temperature Conditions for Determining Amount of Extractives from the Food – Contact Surface of Uncoated and Coated Paper and Paperboard.
3. FDA Guidance for industry: Preparation of Premarket Submission for Food Contact Substances: Chemistry Recommendations, Updated June 2008.
4. Israeli standard 5113: Plastic materials and plastic articles in contact with food and beverages.

The following simulants were used:

**Maximum extractable in water:** the pallet net was extracted with water for 24 hours at 120°F (49°C), followed by evaporation and determination of the extractives.

**Maximum extractable in 8% ethanol:** the pallet net was extracted with 8% ethanol for 24 hours at 120°F (49°C), followed by evaporation and determination of the extractives.

**Maximum extractable in heptane:** the pallet net was extracted with heptane for ½ an hour at 70°F (21°C), followed by evaporation and determination of the extractives.

**Documents:** Documents certifying that all raw materials and additives used for the net production conform to the different health authorities such as the FDA and EU, etc. These documents are kept in our files.

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**Results: Results refer to the samples tested only.**

Results are presented in Tables 1 and they are averages of at least 3 replicates

**Table 1: Maximum extractable residues from the white pallet net (mg/inch<sup>2</sup>)**

Type of net	Water mg/inch <sup>2</sup>	8% ethanol mg/inch <sup>2</sup>	Heptane mg/inch <sup>2</sup>	Max. allowed for simulants mg/inch <sup>2</sup>
White pallet net	0.036	0.041	0.054	0.5

Based on above tests, the residual extracts from the WHITE PALLET NET were within the limits of the FDA and Israeli standard 5113, for wrapping pallets and different food products at ambient temperature

Sincerely Yours



Prof. Joseph Miltz  
Head of laboratory

Nehama Passy  
Package Engineer

