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	PRODUCT TECHNICAL SPECIFICATION	No.	WT-2019/LP-108
polWAX Parafiny przemysłowe	Foamable paraffin wax for grave candles 50	Edition no.	2
	Foamable paraffin wax for grave candles 80	Date (Of actualisation)	February 11th, 2020

1. INTRODUCTION

1.1 Subject. The subject of this document is Foamble paraffin wax for grave candles 50 and 80 obtained as a mixture of refined hydrocarbons.

1.2 Range of the WT subject usage. Foamable paraffin wax for grave candles 50 and 80 are used in production of foamed candles.

2. LABELLING

2.1 Labelling examples:

Foamable paraffin wax for grave candles 50 WT–2019/LP-108

Foamable paraffin wax for grave candles 80 WT–2019/LP-108

3. QUALITY REQUIREMENTS AND TEST METHODS

3.1 Standard parameters and test methods.

Table 1 – Quality requirements valid for each batch of the product:

Parameters	Unit	Foamable paraffin wax for grave candles Parameter value		Test method
		50	**80**	
a) Congealing point	^{o}C	min. 48	48 - 55	PN ISO 2207:2011 ASTM D 938-92
b) Kinematic viscosity at 100°C	mm^2/s	max. 6	max 5	PN-EN ISO 3104:2004
c) Oil content	% (m/m)	Evaluate, indicate in certificate		PN-C-04160:1980 ASTM D 721-97
d) Mechanical impurities and water content	-	not present		PN-C-96115:1974
e) Flash point,(o.c.)	°C	min. 180		PN-EN ISO2592:2008 ASTM D 92-97
f) Needle penetration at 25°C	$mm \cdot 10^{-1}$	Evaluate, indicate in certificate		PN-C-04313:2018 ASTM D 1321
g) Appearance	-	White homogenous mass		visual
h) Relative volume increase during foaming	%(v/v)	approx. 50	approx. 80	Point 3.3 of technical specification

3.2 Sample taking. According to PN-EN ISO 3170:2006.

3.3 Determination of relative volume increase during foaming.
Determination of the volume increase during foaming is carried out by intensive mixing using a dissolver type stirrer.

Apparatus:
- Mechanical agitator with adjustable rotation frequency,
- Dissolver type agitator with a disk diameter of 40 mm, number of dissolver blades: 12, blade height: 8 mm at the lower point and 10 mm at the highest point; blade alternately rolled up and down
- disc,
- 500 ml beaker, with measuring scale,
- Laboratory thermometer.

Procedure:
- Melt the sample, pour 200 ml into a beaker,
- Cool the sample to a temperature approx. 5 degrees above the determined melting point,
- Insert the dissolver into the liquid,
- Read the volume of the liquid,
- Gradually increase the RPM up to 1000 RPM.
- Stir until the foam level has stabilized
- Read the volume of foamed sample.

Calculations:

V1- volume of liquid before foaming [ml]
V2 - foam volume after mixing [ml]
ΔV - relative volume increase [%]

$\Delta V = 100\% \times (V2-V1) / V1$

4. PACKAGING, STORAGE AND TRANSPORTATION

4.1 Packaging. Foamable paraffin wax for grave candles 50 and 80 are stored in a following way:

- Liquid loose in the heated storage tanks,
- Cardboard 20 kg on a wooden pallet

These methods of packaging and storage are in accordance with the regulations of transportation of petroleum products described in national and international transportation law.

It is admitted to use other kind of packages previously agreed between recipient, producer and carrier, in condition that product is protected well.
On each package should be placed a label with at least following information:

a) producer name,
b) address of producer
c) labelling according to the point 2.,
d) mass net or volume,
e) date of production,
f) control number.

4.2 Storage. Foamable paraffin wax for grave candles 50 and 80 should be stored in closed packages in a shaded place protecting against direct access of sun (UV radiation), humidity and mechanical impurities far from the heat radiators. Shelf Life of the product stored in accordance with the above guidelines is 5 years.

4.3 Transportation. The products are not classified as dangerous when shipped by all means of transport and is not a subject of the transportation regulations RID/ADR.

5. ADDITIONAL INFORMATION

5.1 Institution preparing WT: Polwax S.A., Jasło, Poland

5.2 Standards and referenced documents
PN-ISO 3170:2006 – Petroleum liquids. Manual sampling.

Other standards related: table 1

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