



## Inspection certificate

Calpak-Solar products  
Cicero Hellas S.A.  
Oikismos Arion,  
Kira Vrissi Korinthias  
Greece

01-04-2009

### Product name

IN 3247  
17,500 kg

### Customer purchase order data

**Ship-to party**  
Dichem Polymers SA

**Order Quantity**  
17,500 kg

**Your purchase order number**  
10/13.10.2008

### Batch data

**Batch no.**  
4198

**Delivery no.**  
6055

**Goods issue date**  
16/10/2008

**Date of sample testing** 23/3/2009

### Testing conditions

Ambient temperature 23°C

Ambient humidity 50 %

Conditioning time 17 h

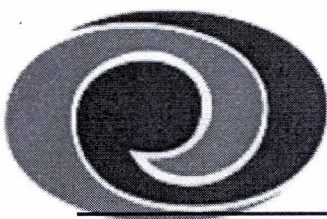
| Sample no.                | Av. Length (mm) | Av. Width (mm) | Av. Thickness (mm) | Mass (g)     | Density (kg/m <sup>3</sup> ) |
|---------------------------|-----------------|----------------|--------------------|--------------|------------------------------|
| 1                         | 99.9 ± 0.25     | 97.83 ± 0.25   | 50.10 ± 0.1        | 20.11 ± 0.02 | 41.07                        |
| 2                         | 98.7 ± 0.25     | 97.42 ± 0.25   | 49.59 ± 0.1        | 19.74 ± 0.02 | 41.40                        |
| 3                         | 100 ± 0.25      | 97.25 ± 0.25   | 50.00 ± 0.1        | 20.14 ± 0.02 | 41.42                        |
| <b>Average</b>            |                 |                |                    |              | <b>41.30</b>                 |
| <b>Standard deviation</b> |                 |                |                    |              | <b>0.20</b>                  |

If any question arise , please call:

Orit Katzenstein  
Polyurethane Ltd.  
Tel: 00972-4-8410186 ext.5  
Fax: 00972-4-8417731  
Mail: [orit@polyurethane.co.il](mailto:orit@polyurethane.co.il)

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1. This notification was generated electronically and is also valid without signature.
2. The above mentioned data and values are the results of previous controls but do not imply any guarantee. This notification does not release the customer from any agreed upon obligation to inspect the goods received.



## Inspection certificate for rigid polyurethane

05-04-2009

### Customer data

Name of Customer  
**Calpak, Greece**

### Product name

Rock wool compared to PU IN3247

### Sample data

Sampling date: April 2009      Inspection date: 01/04/2009      Machine ratio:

| Inspection                                                                 | Rock wool | PU IN 3247 | Units              |
|----------------------------------------------------------------------------|-----------|------------|--------------------|
| Working ratio                                                              | N/A       | 100:164    |                    |
| Density                                                                    | 110       | 50         | Kg/m <sup>3</sup>  |
| Tensile strength in the blowing direction                                  | /         | 2.50       | kg/cm <sup>2</sup> |
| Dimension stability at -20°                                                | /         | 0.1        | %                  |
| Dimension stability at +75° after hydrolysis and 48 hours at 100% humidity | /         | 1.5        | %                  |
| Closed cells                                                               | /         | 91         | %                  |
| Water absorption                                                           | 20.15     | 1.1        | Vol %              |
| Fire behavior                                                              | /         | B3         | DIN 4102 1.2       |
| Hardness                                                                   | /         | /          | ShD                |

### Comments on Samples:

Rock wool

Rock wool

PU IN 3247

Material for sun collectors, produced by Polyurethane Ltd.

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