***I*** Click or tap here to enter text. ***acknowledge that I have read and understood the following Specifications, Warnings and Service Re-Certification information and am authorised to act on behalf of the Company.***

**SPECIFICATIONS**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Product** | **Plastic Forests - Plastic / Rubber Composite I-90 Dunnage** | | | | | | | | | |
| **Type** | I shape recycled plastic and recycled tyre rubber dunnage/glut (I-90) | | | | | | | | | |
| **Dimensions mm** | 90 (w) x 90 (h) nominal (+/- 4mm) Lengths up to 1350mm. (+/- 10mm) | | | | | | | | | |
| **Standard Lengths mm (+/- 10mm)** | 300 | 600 | 870 | | 900 | 1000 | 1165 | | 1200 |  |
| **Weight kg (+/- 5%)** | 1.18 | 2.35 | 3.41 | | 3.53 | 3.9 | 4.56 | | 4.7 |  |
| **Maximum Load Rating at 23°C & Factor of Safety 3 \*** | 4,111  kg | 8,222  kg | 11,922  kg | | 12,333  kg | 13,704  kg | 15,965  kg | | 16,444  kg |  |
| \* with load weight evenly distributed across the surface area of the dunnage, and the bottom surface of the dunnage fully supported  **Factor of Safety** **= 3 to 4**. For use with materials where properties are not reliable and where loading and environmental conditions are not severe, or where reliable materials are used under difficult environmental conditions. <https://www.engineeringtoolbox.com/factors-safety-fos-d_1624.html> | | | | | | | | | | |
| **Pallet Weight kg** | 818 | 810 | 410 | 470 | | 570 | 784 | | 808 |  |
| **Pallet Units** | 676 | 338 | 120 | 133 | | 146 | 172 | | 172 |  |
| **Product Code** | **I-90/300** | **I-90/600** | **I-90/870** | **I-90/900** | | **I-90/1000** | **I-90/1165** | | **I-90/1200** |  |
| **Colour** | Black/charcoal | | | | | | | | | |
| **Raw Material** | 100% Recycled polyolefins + recycled tyre rubber crumb, plus process additives | | | | | | | | | |
| **Use** | Non-structural | | | **Electrical Conductivity** | | | | Non-conductive | | |
| **Cleanability** | May be washed, steam cleaned or chemically sterilised | | | | | | | | | |
| **Indoor/ Outdoor Use** | Ideal for indoor use. May also be used outdoors but may experience sideways bending/bowing in extreme hot conditions (like timber). UV stabiliser added. | | | | | | | | | |
| **Application** | May be used in a wide range of transport and storage applications. Provides clearance for forklift tines to lift goods & provides a stable base for goods once on the ground or truck bed. | | | | | | | | | |
| **Chemical resistance** | Resistant to fuels, oils and most common chemicals. | | | | | | | | | |

**[Text

Description automatically generated](http://www.excelplas.com/)**

**TECHNICAL REPORT** conducted by ExcelPlas Polymer Testing

# Coefficient of Friction - Plastic Forests Plastic / Rubber Composite I-90 Dunnage vs Solid Timber Pine Block against checker plate\*

# 

|  |  |  |
| --- | --- | --- |
|  | **Coefficient of Static friction ((N/g)/kg)**  This is for ground applications | **Coefficient of Kinetic friction ((N/g)/kg)**  This is for ‘on truck/transport’ applications |
| **Plastic Forests Dunnage I-90** | Mean = **0.672** – Range 0.548 - 0.744 | Mean = **0.51** – Range 0.474 – 0.555 |
| Pine Solid Timber Block | Mean = **0.576** – Range 0.547 - 0.637 | Mean = **0.35** – Range 0.309 – 0.394 |

\*Testing is indicative: Results will vary according to the steel type, age, temperature, surface texture, level of surface weathering etc

**Compressive Strength - Plastic Forests Plastic / Rubber Composite I-90** **Dunnage \***

|  |  |  |
| --- | --- | --- |
|  | **Maximum Compressive Strength (N)** | **Maximum Compressive Stress (MPa)** |
| **Plastic Forests Dunnage I-90** | Best case: 36,458 (N) at 23°C | Best case: 20.4 MPa @ 23°C |
| Best case: 32,415 (N) at 35°C | Best case: 15.7 MPa @ 35°C |
| Radiata Pine Timber - Estimate | <http://www.fpc.wa.gov.au/node/906> | Green:19 Dry: 42 |

**WARNINGS**

* Use dunnage in a capital **I** orientation **ONLY.**
* **Designed for single layer use – Non stackable – Not to be used as cribbing**
* **DO NOT USE this product to support mobile plant/ equipment /machinery.**
* **ALWAYS perform your own risk assessment before using this product.**
* Ensure dunnage is placed onto a stable, suitable, non-slip floor or surface before use. For use on flat surfaces only.
* Ensure all surfaces are free of loose materials such as dirt, oils etc.
* Ensure the load is spread over the **whole** surface area of the dunnage. **NOT** to be used for point-to-point loading. Under no circumstances does the maximum loading specified above take into consideration point loading or uneven weight distribution of the supported load.
* Always know the weight being supported and ensure that the surface can carry the intended load. Never exceed the maximum loading.
* Not to be used for steel pipes or smooth surfaced steel without a full risk assessment
* Plastic Forests Pty Ltd makes no warranty, representation or guarantee regarding the suitability of this product for any particular purpose. No liability whatsoever is accepted by Plastic Forests Pty Ltd for any loss or damage however arising, which results either directly or indirectly from the use or application of this product.

**SERVICE & RE-CERTIFICATION**

Plastic Forests’ Plastic / Rubber Composite I-90 Dunnage has a design life of many years. However, a service interval of **up to 2 years** applies from the date of manufacture before factory inspection and possible recertification for another 2 years is required. The ‘Service Due Date’ stamped on each item acts as a guide only, as the functional life is dependent on factors outside the control of the manufacturer such as usage, storage, environmental and operational conditions.

Dunnage should be visually inspected at each time of use for signs of spine deformation/compression (indicating overloading has occurred), damage, cracks, deterioration or penetration; worn, damaged, deformed or smooth contact face areas which may result in a loss of grip; or any other damage due to impact, rough treatment, or inappropriate use. Dunnage exhibiting such damage or deterioration, or dunnage past its ‘Service Due Date’ should be immediately withdrawn from service and returned to Plastic Forests for possible recertification, re-surfacing or end of life recycling back into new I-90 dunnage.

***Date:*** Click or tap to enter a date.

***Company:*** Click or tap here to enter text. ***Position:*** Click or tap here to enter text.

***Signed (digitally or manually):***

