

## Specification

<b>Description</b>	Kedel recycled plastic decking is made of 100% high quality waste from post industrial and consumer use and where necessary selected process additives.
<b>Composition</b>	LDPE (Low Density Polyethylene) HDPE (High Density Polyethylene), PP (Polypropylene), ABS (Acrylonitrile Butadiene Styrene Co-polymer), HIPS (High Impact Polystyrene) and other thermoplastic materials.
<b>Production Process</b>	The polymers are ground, mixed and fused under high temperatures and pressures into pressed moulds.
<b>Finish</b>	The surface is knot free, evenly coloured and shows a textured structure.
<b>Properties</b>	<ul style="list-style-type: none"> <li>▪ Maintenance free</li> <li>▪ Durable</li> <li>▪ Can be worked as wood</li> <li>▪ Splinter free</li> <li>▪ Frost proof</li> <li>▪ Impervious to fungi and insects</li> <li>▪ Does not leach toxic substances</li> <li>▪ Wear resistant</li> <li>▪ Does not rot</li> <li>▪ Environmentally friendly</li> <li>▪ 100% recycled and recyclable</li> <li>▪ Insulating</li> <li>▪ Acoustic sound proofing</li> <li>▪ Shock proof and flexible</li> </ul>

### Mixed Plastic Decking - Recommended Span Distances

Size (mm)	Max. Centre to Centre Distance (mm)	Max Free Span Length (mm)	Max Overhang (mm)
150 x 38	600	550	125
150 x 27	500	450	125
195 x 28	400	300	20
197 x 60	700	640	80
170 x 40	640	600	70
165 x 48	520	440	60

### Kedel's Plastic Wood Decking - Recommended Span Distances

120 x 20	400	300	20
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These free spans of lengths of support have been calculated according to the following load conditions:

1. A distributed load of 2.5kN/m<sup>2</sup>
2. A point load of 1000N applied to the middle of the profile
3. A long term load applied by the mass of the decking profile

The maximum required deflection is determined at 1/250 of the free span length for calculating the maximum centre to centre distance and for the maximum free span length and at 1/600 for the maximum overhang length. We always consider and take into account a dynamic safety factor of 2.5 for permissible stresses in short term conditions. For longer term loading we must take into consideration creep of the material. For different loading conditions, Kedel can calculate the maximum permissible free span from first principles.

### Construction

Kedel decking can be constructed using countersunk chipboard screws with a 6mm diameter (80mm length) for the 38mm decking profiles and 6mm diameter (90mm length) for the 50mm decking profile. All holes will need to be pre-drilled. We recommend the use of an oversized hole to allow for movement associated with the thermal coefficient of expansion properties of the material.

### Limitations

Kedel's Mixed Plastic and Plastic Wood materials are less rigid (modulus of elasticity) with greater thermal elongation than timber. This should therefore be taken into account at the design stage of the project. Note variations in support recommendations above.