# PLE-P Photoluminescent pigment

*(Long afterglow glow in the dark powder)*

<table>
<thead>
<tr>
<th>Model</th>
<th>Size</th>
<th>AFTERGLOW INTENSITY</th>
<th>mcd/</th>
<th>Glowing color</th>
<th>Appearance (Daytime)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(D50)um</td>
<td>10 min</td>
<td>60 min</td>
<td>Glow time</td>
<td></td>
</tr>
<tr>
<td>PLE-P-Z-6B</td>
<td>65-85</td>
<td>725</td>
<td>120</td>
<td>&gt;12 hour</td>
<td>Yellow-green</td>
</tr>
<tr>
<td>PLE-P-Z-6C</td>
<td>45-55</td>
<td>480</td>
<td>85</td>
<td>Light-yellow</td>
<td></td>
</tr>
<tr>
<td>PLE-P-Z-6D</td>
<td>25-35</td>
<td>380</td>
<td>55</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PLE-P-Z-6E</td>
<td>5-15</td>
<td>280</td>
<td>39</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PLE-P-Z-6F</td>
<td>2-10</td>
<td>240</td>
<td>30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PLE-P-Z-4B</td>
<td>65-85</td>
<td>640</td>
<td>105</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PLE-P-Z-4C</td>
<td>45-55</td>
<td>450</td>
<td>70</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PLE-P-Z-4D</td>
<td>25-35</td>
<td>320</td>
<td>42</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PLE-P-Z-4E</td>
<td>5-15</td>
<td>220</td>
<td>29</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PLE-P-Z-4F</td>
<td>2-10</td>
<td>190</td>
<td>23</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PLE-P-Z-2C</td>
<td>55-75</td>
<td>350</td>
<td>40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PLE-P-Z-2D</td>
<td>15-45</td>
<td>250</td>
<td>32</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PLE-P-Z-1C</td>
<td>55-75</td>
<td>260</td>
<td>35</td>
<td>10 hour</td>
<td></td>
</tr>
<tr>
<td>PLE-P-Z-1D</td>
<td>15-40</td>
<td>200</td>
<td>25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PLE-P-M-5B</td>
<td>65-85</td>
<td>700</td>
<td>120</td>
<td>&gt;12 hour</td>
<td>Light-yellow</td>
</tr>
<tr>
<td>PLE-P-M-5C</td>
<td>45-55</td>
<td>480</td>
<td>85</td>
<td>Blue-green</td>
<td></td>
</tr>
<tr>
<td>PLE-P-M-5D</td>
<td>25-35</td>
<td>360</td>
<td>58</td>
<td>Light-yellow</td>
<td></td>
</tr>
<tr>
<td>PLE-P-M-5E</td>
<td>5-15</td>
<td>260</td>
<td>38</td>
<td>Blue-green</td>
<td></td>
</tr>
<tr>
<td>PLE-P-M-4B</td>
<td>65-85</td>
<td>630</td>
<td>110</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PLE-P-M-4C</td>
<td>45-55</td>
<td>440</td>
<td>75</td>
<td>Blue-green</td>
<td>Light-white</td>
</tr>
<tr>
<td>PLE-P-M-4D</td>
<td>15-35</td>
<td>320</td>
<td>50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PLE-P-M-4E</td>
<td>5-15</td>
<td>220</td>
<td>30</td>
<td>Blue-green</td>
<td>Light-white</td>
</tr>
<tr>
<td>PLE-P-M-3C</td>
<td>55-75</td>
<td>400</td>
<td>55</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PLE-P-M-3D</td>
<td>15-45</td>
<td>280</td>
<td>35</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PLE-P-M-1C</td>
<td>55-75</td>
<td>260</td>
<td>38</td>
<td>10 hour</td>
<td></td>
</tr>
<tr>
<td>PLE-P-M-1D</td>
<td>15-40</td>
<td>200</td>
<td>23</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PLE-P-F-6C</td>
<td>45-75</td>
<td>28</td>
<td>5</td>
<td>3 hour</td>
<td>purple</td>
</tr>
<tr>
<td>PLE-P-F-6D</td>
<td>15-45</td>
<td>19</td>
<td>3.5</td>
<td>6 hour</td>
<td>White</td>
</tr>
<tr>
<td>PLE-P-M-9B</td>
<td>65-85</td>
<td>260</td>
<td>22</td>
<td>8 hour</td>
<td>Blue</td>
</tr>
<tr>
<td>PLE-P-M-9C</td>
<td>45-55</td>
<td>220</td>
<td>18</td>
<td>Blue</td>
<td>white</td>
</tr>
<tr>
<td>PLE-P-M-9D</td>
<td>25-35</td>
<td>180</td>
<td>15</td>
<td>Blue</td>
<td>white</td>
</tr>
<tr>
<td>PLE-P-M-9E</td>
<td>5-15</td>
<td>140</td>
<td>12</td>
<td>Blue</td>
<td>white</td>
</tr>
<tr>
<td>PLE-P-M-8D</td>
<td>15-50</td>
<td>150</td>
<td>13</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### PLE-PI Photoluminescent Sand

<table>
<thead>
<tr>
<th>Model</th>
<th>Size (D&lt;sub&gt;50&lt;/sub&gt; mm)</th>
<th>Afterglow Intensity</th>
<th>mcd/ Glowing time</th>
<th>Appearance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>10min</td>
<td>60min</td>
<td></td>
</tr>
<tr>
<td>PLE-PI-Z-6A</td>
<td>0.5–2</td>
<td>1050</td>
<td>145</td>
<td>&gt;12hr</td>
</tr>
<tr>
<td>PLE-PI-Z-6BA</td>
<td>0.15-0.3</td>
<td>910</td>
<td>140</td>
<td><a href="image3">Image</a></td>
</tr>
<tr>
<td>PLE-PI-Z-4A</td>
<td>0.5–2</td>
<td>950</td>
<td>115</td>
<td><a href="image5">Image</a></td>
</tr>
<tr>
<td>PLE-PI-Z-4BA</td>
<td>0.15-0.3</td>
<td>820</td>
<td>110</td>
<td><a href="image7">Image</a></td>
</tr>
<tr>
<td>PLE-PI-M-5A</td>
<td>0.5–2</td>
<td>880</td>
<td>145</td>
<td><a href="image9">Image</a></td>
</tr>
<tr>
<td>PLE-PI-M-5BA</td>
<td>0.15-0.3</td>
<td>790</td>
<td>140</td>
<td><a href="image11">Image</a></td>
</tr>
<tr>
<td>PLE-PI-M-4A</td>
<td>0.5–2</td>
<td>770</td>
<td>130</td>
<td><a href="image13">Image</a></td>
</tr>
<tr>
<td>PLE-PI-M-4BA</td>
<td>0.15-0.3</td>
<td>700</td>
<td>120</td>
<td><a href="image15">Image</a></td>
</tr>
</tbody>
</table>

PLE-P series: This series photoluminescent pigment is made of alkaline earth aluminate. The chemical formula: Al<sub>x</sub>SryCa(1-y)O<sub>z</sub>: Eu Dy

### PLE-PY Series Photoluminescent Pigment List

<table>
<thead>
<tr>
<th>Model</th>
<th>Size (D&lt;sub&gt;50&lt;/sub&gt; μm)</th>
<th>Afterglow intensity</th>
<th>mcd/ Glowing color</th>
<th>Appearance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>10min</td>
<td>60min</td>
<td>Night</td>
</tr>
<tr>
<td>PLE-P-Z-8CY</td>
<td>50–65</td>
<td>120</td>
<td>20</td>
<td><a href="image17">Image</a></td>
</tr>
<tr>
<td>PLE-P-Z-8DY</td>
<td>25–35</td>
<td>90</td>
<td>15</td>
<td><a href="image19">Image</a></td>
</tr>
<tr>
<td>PLE-P-Z-8EY</td>
<td>5–15</td>
<td>60</td>
<td>10</td>
<td><a href="image21">Image</a></td>
</tr>
</tbody>
</table>

PLE-PY Luminance test conditions: D65 standard light source at 25LX luminous flux density for 15min of excitation. PLE-PY series photoluminescent pigments are made from alkaline earth strontium aluminate, which present themselves in light yellow and whose luminance colors is yellow green. MH-Y photoluminescent pigment features quick light absorption and easy excitation, always recommended to use in these area range with low illumination level, such as tunnel, underground garage, submarine and so on.

### PLE-PS Photoluminescent Pigment

**(sulphide Photoluminescent pigment)**

<table>
<thead>
<tr>
<th>Model</th>
<th>Size (D&lt;sub&gt;50&lt;/sub&gt; μm)</th>
<th>Afterglow intensity</th>
<th>mcd/ Glowing color</th>
<th>Appearance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>10min</td>
<td>60min</td>
<td>Night</td>
</tr>
<tr>
<td>PLE-PS-Z-4D</td>
<td>10–30</td>
<td>40</td>
<td>4</td>
<td><a href="image23">Image</a></td>
</tr>
<tr>
<td>PLE-PS-C-4D</td>
<td>20–50</td>
<td>20</td>
<td>1</td>
<td><a href="image25">Image</a></td>
</tr>
<tr>
<td>PLE-PS-O-4D</td>
<td>20–50</td>
<td>22</td>
<td>1</td>
<td><a href="image27">Image</a></td>
</tr>
<tr>
<td>PLE-PS-B-4D</td>
<td>15–45</td>
<td>170</td>
<td>27</td>
<td><a href="image29">Image</a></td>
</tr>
<tr>
<td>PLE-PS-OB-4D</td>
<td>10–45</td>
<td>25</td>
<td>1.2</td>
<td><a href="image31">Image</a></td>
</tr>
</tbody>
</table>

PLE-PS series: It is sulfide Photoluminescent material. The chemical formula: MxOyS<sub>z</sub>:Eu Ln or ZnS:Cu.
## PLE-PN Photoluminescent pigment

**Daytime Appearance: neon color**

<table>
<thead>
<tr>
<th>Model</th>
<th>Size (D50) um</th>
<th>Afterglow intensity mcd/</th>
<th>Glowing color Night</th>
<th>Appearance Daytime</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLE-PN-C-4D</td>
<td>25~35</td>
<td>180</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>PLE-PN-Z-4D</td>
<td>25~35</td>
<td>170</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>PLE-PN-ZE-4D</td>
<td>25~35</td>
<td>200</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td>PLE-PN-O-4D</td>
<td>25~35</td>
<td>180</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>PLE-PN-M-4D</td>
<td>25~35</td>
<td>140</td>
<td>20</td>
<td></td>
</tr>
</tbody>
</table>

PLE-PN series: This series Photoluminescent pigment by dyeing process on base of PLE-P series.

### Remarks: 2017

1. Measurement according to Din 67 510 Part 1; 1000lux,10min
2. To pay extra on PLE-P, PLE-PN type powders above for encapsulated for water based application(PLE-P-W, PLE-PN-W).
3. Normal packing: 1kg each plastic or 25 kgs each plastic pail.