


 Reception : 14/01/2022  
 Par : M.PETIT

**Contact client**

 ALPES ENERGIE BOIS  
 ZI La Rolande  
 38570 Le Cheylas

**Informations sur le prélèvement**

 Date : 12 janvier 2022  
 Par : P. BULFAY  
 Lieu : Ensacheuse / Sac

**Description du produit**

Granulé de résineux

**Informations complémentaires**

| Paramètres   | Résultats  | Conformité DIN Plus         | Interprétation selon l'ISO 17225  |                            |                        |                         |     |      |               |                |     |                   |      |    |         |                |        |     |               |               |        |     |                 |               |     |           |     |    |            |               |        |      |  |   |  |
|--|--|-----------------------------|---|----------------------------|------------------------|-------------------------|-----|------|---------------|----------------|-----|-------------------|------|----|---------|----------------|--------|-----|---------------|---------------|--------|-----|-----------------|---------------|-----|-----------|-----|----|------------|---------------|--------|------|--|---|--|
| <b>Humidité - NF EN ISO 18134-1</b>  |  |                             |   |                            |                        |                         |     |      |               |                |     |                   |      |    |         |                |        |     |               |               |        |     |                 |               |     |           |     |    |            |               |        |      |  |   |  |
| Humidité sur brut  | 8%   | ✓                           | <table border="1"> <tr><td>Valeurs Limites autorisées</td></tr> <tr><td>Certification DIN Plus</td></tr> <tr><td>10,00%</td></tr> </table>  | Valeurs Limites autorisées | Certification DIN Plus | 10,00%                  |     |      |               |                |     |                   |      |    |         |                |        |     |               |               |        |     |                 |               |     |           |     |    |            |               |        |      |  |   |  |
| Valeurs Limites autorisées   |  |                             |   |                            |                        |                         |     |      |               |                |     |                   |      |    |         |                |        |     |               |               |        |     |                 |               |     |           |     |    |            |               |        |      |  |   |  |
| Certification DIN Plus   |  |                             |   |                            |                        |                         |     |      |               |                |     |                   |      |    |         |                |        |     |               |               |        |     |                 |               |     |           |     |    |            |               |        |      |  |   |  |
| 10,00%   |  |                             |   |                            |                        |                         |     |      |               |                |     |                   |      |    |         |                |        |     |               |               |        |     |                 |               |     |           |     |    |            |               |        |      |  |   |  |
| <b>Masse volumique - NF EN ISO 17828</b>   |  |                             |   |                            |                        |                         |     |      |               |                |     |                   |      |    |         |                |        |     |               |               |        |     |                 |               |     |           |     |    |            |               |        |      |  |   |  |
| Masse volumique anhydre<br>Masse volumique sur brut  | 612 kg/m <sup>3</sup><br><b>664 kg/m<sup>3</sup></b> | -<br>✓                      | <table border="1"> <tr><td>Valeurs Limites autorisées</td></tr> <tr><td>Certification DIN Plus</td></tr> <tr><td>&gt; 600 kg/m<sup>3</sup></td></tr> </table>   | Valeurs Limites autorisées | Certification DIN Plus | > 600 kg/m <sup>3</sup> |     |      |               |                |     |                   |      |    |         |                |        |     |               |               |        |     |                 |               |     |           |     |    |            |               |        |      |  |   |  |
| Valeurs Limites autorisées   |  |                             |   |                            |                        |                         |     |      |               |                |     |                   |      |    |         |                |        |     |               |               |        |     |                 |               |     |           |     |    |            |               |        |      |  |   |  |
| Certification DIN Plus   |  |                             |   |                            |                        |                         |     |      |               |                |     |                   |      |    |         |                |        |     |               |               |        |     |                 |               |     |           |     |    |            |               |        |      |  |   |  |
| > 600 kg/m <sup>3</sup>  |  |                             |   |                            |                        |                         |     |      |               |                |     |                   |      |    |         |                |        |     |               |               |        |     |                 |               |     |           |     |    |            |               |        |      |  |   |  |
| <b>Pouvoir calorifique - ISO 18125</b>   |  |                             |   |                            |                        |                         |     |      |               |                |     |                   |      |    |         |                |        |     |               |               |        |     |                 |               |     |           |     |    |            |               |        |      |  |   |  |
| PCI anhydre<br>PCI sur brut  | 5246 kWh/t<br><b>4780 kWh/t</b>                      | ✓                           | <table border="1"> <tr><td>Valeurs Limites autorisées</td></tr> <tr><td>Certification DIN Plus</td></tr> <tr><td>&gt; 4600 kWh/t</td></tr> </table>   | Valeurs Limites autorisées | Certification DIN Plus | > 4600 kWh/t            |     |      |               |                |     |                   |      |    |         |                |        |     |               |               |        |     |                 |               |     |           |     |    |            |               |        |      |  |   |  |
| Valeurs Limites autorisées   |  |                             |   |                            |                        |                         |     |      |               |                |     |                   |      |    |         |                |        |     |               |               |        |     |                 |               |     |           |     |    |            |               |        |      |  |   |  |
| Certification DIN Plus   |  |                             |   |                            |                        |                         |     |      |               |                |     |                   |      |    |         |                |        |     |               |               |        |     |                 |               |     |           |     |    |            |               |        |      |  |   |  |
| > 4600 kWh/t   |  |                             |   |                            |                        |                         |     |      |               |                |     |                   |      |    |         |                |        |     |               |               |        |     |                 |               |     |           |     |    |            |               |        |      |  |   |  |
| <b>Taux de cendres - NF EN ISO 18122</b>   |  |                             |   |                            |                        |                         |     |      |               |                |     |                   |      |    |         |                |        |     |               |               |        |     |                 |               |     |           |     |    |            |               |        |      |  |   |  |
| Cendres sur sec<br>Cendres sur brut  | 0,4%<br>0,35%  | ✓                           | <table border="1"> <tr><td>Valeurs Limites autorisées</td></tr> <tr><td>Certification DIN Plus</td></tr> <tr><td>0,7%</td></tr> </table> <p>Quantité de cendres    3,5kg/tonne    2,3kg/m<sup>3</sup></p> | Valeurs Limites autorisées | Certification DIN Plus | 0,7%                    |     |      |               |                |     |                   |      |    |         |                |        |     |               |               |        |     |                 |               |     |           |     |    |            |               |        |      |  |   |  |
| Valeurs Limites autorisées   |  |                             |   |                            |                        |                         |     |      |               |                |     |                   |      |    |         |                |        |     |               |               |        |     |                 |               |     |           |     |    |            |               |        |      |  |   |  |
| Certification DIN Plus   |  |                             |   |                            |                        |                         |     |      |               |                |     |                   |      |    |         |                |        |     |               |               |        |     |                 |               |     |           |     |    |            |               |        |      |  |   |  |
| 0,7%   |  |                             |   |                            |                        |                         |     |      |               |                |     |                   |      |    |         |                |        |     |               |               |        |     |                 |               |     |           |     |    |            |               |        |      |  |   |  |
| <b>Dimensions - ISO 17829</b>  |  |                             |   |                            |                        |                         |     |      |               |                |     |                   |      |    |         |                |        |     |               |               |        |     |                 |               |     |           |     |    |            |               |        |      |  |   |  |
| Diamètre   | 6,2 mm   | ✓                           | <table border="1"> <tr><td>VL autorisée DIN Plus</td></tr> <tr><td>diamètre</td></tr> <tr><td>6 mm ± 1 mm</td></tr> </table>  | VL autorisée DIN Plus      | diamètre               | 6 mm ± 1 mm             |     |      |               |                |     |                   |      |    |         |                |        |     |               |               |        |     |                 |               |     |           |     |    |            |               |        |      |  |   |  |
| VL autorisée DIN Plus  |  |                             |   |                            |                        |                         |     |      |               |                |     |                   |      |    |         |                |        |     |               |               |        |     |                 |               |     |           |     |    |            |               |        |      |  |   |  |
| diamètre   |  |                             |   |                            |                        |                         |     |      |               |                |     |                   |      |    |         |                |        |     |               |               |        |     |                 |               |     |           |     |    |            |               |        |      |  |   |  |
| 6 mm ± 1 mm  |  |                             |   |                            |                        |                         |     |      |               |                |     |                   |      |    |         |                |        |     |               |               |        |     |                 |               |     |           |     |    |            |               |        |      |  |   |  |
| Longueur moyenne<br>Longueur maximale  | 16,2 mm<br>38,0 mm                                   | ✓                           | <table border="1"> <tr><td>longueur</td></tr> <tr><td>3.15-40 mm</td></tr> </table>   | longueur                   | 3.15-40 mm             |                         |     |      |               |                |     |                   |      |    |         |                |        |     |               |               |        |     |                 |               |     |           |     |    |            |               |        |      |  |   |  |
| longueur   |  |                             |   |                            |                        |                         |     |      |               |                |     |                   |      |    |         |                |        |     |               |               |        |     |                 |               |     |           |     |    |            |               |        |      |  |   |  |
| 3.15-40 mm   |  |                             |   |                            |                        |                         |     |      |               |                |     |                   |      |    |         |                |        |     |               |               |        |     |                 |               |     |           |     |    |            |               |        |      |  |   |  |
| <b>Teneur en fines - ISO 18846</b>   |  |                             |   |                            |                        |                         |     |      |               |                |     |                   |      |    |         |                |        |     |               |               |        |     |                 |               |     |           |     |    |            |               |        |      |  |   |  |
| Taux de fines  | 0,2%   | ✓                           | <table border="1"> <tr><td>VL autorisée DIN Plus</td></tr> <tr><td>taux de fine &lt; 3,15mm</td></tr> <tr><td>&lt; 1%</td></tr> </table>  | VL autorisée DIN Plus      | taux de fine < 3,15mm  | < 1%                    |     |      |               |                |     |                   |      |    |         |                |        |     |               |               |        |     |                 |               |     |           |     |    |            |               |        |      |  |   |  |
| VL autorisée DIN Plus  |  |                             |   |                            |                        |                         |     |      |               |                |     |                   |      |    |         |                |        |     |               |               |        |     |                 |               |     |           |     |    |            |               |        |      |  |   |  |
| taux de fine < 3,15mm  |  |                             |   |                            |                        |                         |     |      |               |                |     |                   |      |    |         |                |        |     |               |               |        |     |                 |               |     |           |     |    |            |               |        |      |  |   |  |
| < 1%   |  |                             |   |                            |                        |                         |     |      |               |                |     |                   |      |    |         |                |        |     |               |               |        |     |                 |               |     |           |     |    |            |               |        |      |  |   |  |
| <table border="1"> <thead> <tr> <th>répartition granulométrique</th> <th>Masse</th> <th>%</th> <th></th> </tr> </thead> <tbody> <tr> <td>0 &lt; p &lt; 1mm</td> <td>4 g</td> <td rowspan="2">0,2%</td> <td rowspan="2">Fraction fine</td> </tr> <tr> <td>1 ≤ p &lt; 3,15mm</td> <td>4 g</td> </tr> <tr> <td>3,15 ≤ p &lt; 5,6 mm</td> <td>18 g</td> <td>1%</td> <td>Brisure</td> </tr> <tr> <td>5,6 ≤ p &lt; 8 mm</td> <td>1203 g</td> <td>38%</td> <td>petit granulé</td> </tr> <tr> <td>8 ≤ p &lt; 16 mm</td> <td>1968 g</td> <td rowspan="2">62%</td> <td rowspan="2">granulé correct</td> </tr> <tr> <td>16 ≤ p &lt; 40mm</td> <td>8 g</td> </tr> <tr> <td>p ≥ 40 mm</td> <td>0 g</td> <td>0%</td> <td>hors norme</td> </tr> <tr> <td>Total analysé</td> <td>3205 g</td> <td>100%</td> <td></td> </tr> </tbody> </table> |  | répartition granulométrique | Masse   | %                          |                        | 0 < p < 1mm             | 4 g | 0,2% | Fraction fine | 1 ≤ p < 3,15mm | 4 g | 3,15 ≤ p < 5,6 mm | 18 g | 1% | Brisure | 5,6 ≤ p < 8 mm | 1203 g | 38% | petit granulé | 8 ≤ p < 16 mm | 1968 g | 62% | granulé correct | 16 ≤ p < 40mm | 8 g | p ≥ 40 mm | 0 g | 0% | hors norme | Total analysé | 3205 g | 100% |  | <p><b>Classement du granulé par rapport au marché</b></p> <p>3,15-8mm    8-16mm</p> |  |
| répartition granulométrique  | Masse  | %                           |   |                            |                        |                         |     |      |               |                |     |                   |      |    |         |                |        |     |               |               |        |     |                 |               |     |           |     |    |            |               |        |      |  |   |  |
| 0 < p < 1mm  | 4 g  | 0,2%                        | Fraction fine   |                            |                        |                         |     |      |               |                |     |                   |      |    |         |                |        |     |               |               |        |     |                 |               |     |           |     |    |            |               |        |      |  |   |  |
| 1 ≤ p < 3,15mm   | 4 g  |                             |   |                            |                        |                         |     |      |               |                |     |                   |      |    |         |                |        |     |               |               |        |     |                 |               |     |           |     |    |            |               |        |      |  |   |  |
| 3,15 ≤ p < 5,6 mm  | 18 g   | 1%                          | Brisure   |                            |                        |                         |     |      |               |                |     |                   |      |    |         |                |        |     |               |               |        |     |                 |               |     |           |     |    |            |               |        |      |  |   |  |
| 5,6 ≤ p < 8 mm   | 1203 g   | 38%                         | petit granulé   |                            |                        |                         |     |      |               |                |     |                   |      |    |         |                |        |     |               |               |        |     |                 |               |     |           |     |    |            |               |        |      |  |   |  |
| 8 ≤ p < 16 mm  | 1968 g   | 62%                         | granulé correct   |                            |                        |                         |     |      |               |                |     |                   |      |    |         |                |        |     |               |               |        |     |                 |               |     |           |     |    |            |               |        |      |  |   |  |
| 16 ≤ p < 40mm  | 8 g  |                             |   |                            |                        |                         |     |      |               |                |     |                   |      |    |         |                |        |     |               |               |        |     |                 |               |     |           |     |    |            |               |        |      |  |   |  |
| p ≥ 40 mm  | 0 g  | 0%                          | hors norme  |                            |                        |                         |     |      |               |                |     |                   |      |    |         |                |        |     |               |               |        |     |                 |               |     |           |     |    |            |               |        |      |  |   |  |
| Total analysé  | 3205 g   | 100%                        |   |                            |                        |                         |     |      |               |                |     |                   |      |    |         |                |        |     |               |               |        |     |                 |               |     |           |     |    |            |               |        |      |  |   |  |
| <b>Résistance mécanique - ISO 17831-1</b>  |  |                             |   |                            |                        |                         |     |      |               |                |     |                   |      |    |         |                |        |     |               |               |        |     |                 |               |     |           |     |    |            |               |        |      |  |   |  |
| Durabilité   | 99,0%  | ✓                           | <table border="1"> <tr><td>VL autorisée DIN Plus</td></tr> <tr><td>&gt; 97,5%</td></tr> </table>  | VL autorisée DIN Plus      | > 97,5%                |                         |     |      |               |                |     |                   |      |    |         |                |        |     |               |               |        |     |                 |               |     |           |     |    |            |               |        |      |  |   |  |
| VL autorisée DIN Plus  |  |                             |   |                            |                        |                         |     |      |               |                |     |                   |      |    |         |                |        |     |               |               |        |     |                 |               |     |           |     |    |            |               |        |      |  |   |  |
| > 97,5%  |  |                             |   |                            |                        |                         |     |      |               |                |     |                   |      |    |         |                |        |     |               |               |        |     |                 |               |     |           |     |    |            |               |        |      |  |   |  |

**Observations**

Le granulé est conforme aux exigences physicochimiques de la norme certification DIN Plus et de la norme ISO 17225-2.