

## Dimensioning of SWISS KRONO MAGNUMBOARD® OSB Floor Elements

Width 1.00 m, for use in dry conditions, service class 1

The tables are for pre-dimensioning and do not replace the static calculation. Only calculated with area loads  
For the thickness 175 and 225 mm we recommend to interpolate the values

### One span system

Max. distance of the substructure [m] **including swinging analysis**

weight of elements [kN/m <sup>2</sup> ]	dead load floor construction [kN/m <sup>2</sup> ]	life load [kN/m <sup>2</sup> ]					
		1.0	1.5	2.0	3.0	3.5	5.0
<b>thickness 125 mm</b>							
0.79	0.00	<b>4.27</b>	<b>4.14</b>	<b>4.02</b>	<b>3.82</b>	<b>3.74</b>	<b>3.42</b>
0.79	0.50	<b>3.88</b>	<b>3.80</b>	<b>3.72</b>	<b>3.58</b>	<b>3.52</b>	<b>3.36</b>
0.79	1.50	<b>3.43</b>	<b>3.43</b>	<b>3.33</b>	<b>3.25</b>	<b>3.21</b>	<b>3.23</b>
0.79	2.00	<b>3.28</b>	<b>3.24</b>	<b>3.20</b>	<b>3.13</b>	<b>3.10</b>	<b>3.01</b>
0.79	3.00	<b>3.05</b>	<b>3.02</b>	<b>3.00</b>	<b>2.95</b>	<b>2.92</b>	<b>2.86</b>

<b>150 mm</b>							
0.95	0.00	<b>4.73</b>	<b>4.60</b>	<b>4.48</b>	<b>4.28</b>	<b>4.20</b>	<b>3.99</b>
0.95	0.50	<b>4.34</b>	<b>4.25</b>	<b>4.17</b>	<b>4.03</b>	<b>3.96</b>	<b>3.80</b>
0.95	1.50	<b>3.87</b>	<b>3.82</b>	<b>3.77</b>	<b>3.68</b>	<b>3.64</b>	<b>3.53</b>
0.95	2.00	<b>3.71</b>	<b>3.66</b>	<b>3.62</b>	<b>3.55</b>	<b>3.51</b>	<b>3.42</b>
0.95	3.00	<b>3.46</b>	<b>3.43</b>	<b>3.40</b>	<b>3.34</b>	<b>3.32</b>	<b>3.25</b>

<b>200 mm</b>							
1.27	0.00	<b>5.53</b>	<b>5.41</b>	<b>5.29</b>	<b>5.09</b>	<b>5.01</b>	<b>4.78</b>
1.27	0.50	<b>5.16</b>	<b>5.06</b>	<b>4.98</b>	<b>4.83</b>	<b>4.76</b>	<b>4.58</b>
1.27	1.50	<b>4.65</b>	<b>4.60</b>	<b>4.55</b>	<b>4.45</b>	<b>4.40</b>	<b>4.28</b>
1.27	2.00	<b>4.48</b>	<b>4.44</b>	<b>4.39</b>	<b>4.31</b>	<b>4.27</b>	<b>4.16</b>
1.27	3.00	<b>4.21</b>	<b>4.17</b>	<b>4.14</b>	<b>4.07</b>	<b>4.04</b>	<b>3.96</b>

<b>250 mm</b>							
1.59	0.00	<b>6.23</b>	<b>6.12</b>	<b>6.01</b>	<b>5.81</b>	<b>5.72</b>	<b>5.50</b>
1.59	0.50	<b>5.87</b>	<b>5.78</b>	<b>5.69</b>	<b>5.54</b>	<b>5.47</b>	<b>5.28</b>
1.59	1.50	<b>5.36</b>	<b>5.30</b>	<b>5.25</b>	<b>5.14</b>	<b>5.09</b>	<b>4.96</b>
1.59	2.00	<b>5.17</b>	<b>5.12</b>	<b>5.08</b>	<b>4.99</b>	<b>4.94</b>	<b>4.83</b>
1.59	3.00	<b>4.88</b>	<b>4.84</b>	<b>4.80</b>	<b>4.73</b>	<b>4.70</b>	<b>4.61</b>

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For the thickness 175 and 225 mm we recommend to interpolate the values

### One span system

Max. distance of the substructure [m] **without swinging analysis** / bending max  $l/300$  or  $l/200$  long time load

weight of elements [kN/m <sup>2</sup> ]	dead load floor construction [kN/m <sup>2</sup> ]	life load [kN/m <sup>2</sup> ]					
		1.0	1.5	2.0	3.0	3.5	5.0
<b>thickness 125 mm</b>							
0.79	0.00	<b>5.60</b>	<b>5.14</b>	<b>4.67</b>	<b>4.07</b>	<b>3.86</b>	<b>3.42</b>
0.79	0.50	<b>4.93</b>	<b>4.79</b>	<b>4.60</b>	<b>4.33</b>	<b>3.86</b>	<b>3.42</b>
0.79	1.50	<b>4.50</b>	<b>4.39</b>	<b>4.30</b>	<b>4.21</b>	<b>3.86</b>	<b>3.42</b>
0.79	2.00	<b>4.18</b>	<b>4.10</b>	<b>4.03</b>	<b>3.96</b>	<b>3.66</b>	<b>3.40</b>
0.79	3.00	<b>3.58</b>	<b>3.54</b>	<b>3.49</b>	<b>3.41</b>	<b>3.38</b>	<b>3.28</b>

<b>150 mm</b>							
0.95	0.00	<b>6.42</b>	<b>6.09</b>	<b>5.60</b>	<b>4.88</b>	<b>4.63</b>	<b>4.10</b>
0.95	0.50	<b>5.73</b>	<b>5.58</b>	<b>5.43</b>	<b>4.88</b>	<b>4.63</b>	<b>4.10</b>
0.95	1.50	<b>4.92</b>	<b>4.83</b>	<b>4.75</b>	<b>4.60</b>	<b>4.53</b>	<b>4.10</b>
0.95	2.00	<b>4.65</b>	<b>4.58</b>	<b>4.51</b>	<b>4.39</b>	<b>4.33</b>	<b>4.07</b>
0.95	3.00	<b>4.24</b>	<b>4.19</b>	<b>4.14</b>	<b>4.05</b>	<b>4.01</b>	<b>3.89</b>

<b>200 mm</b>							
1.27	0.00	<b>7.93</b>	<b>7.69</b>	<b>7.47</b>	<b>6.51</b>	<b>6.18</b>	<b>5.47</b>
1.27	0.50	<b>7.22</b>	<b>7.05</b>	<b>6.90</b>	<b>6.46</b>	<b>6.18</b>	<b>5.47</b>
1.27	1.50	<b>6.32</b>	<b>6.22</b>	<b>6.12</b>	<b>5.95</b>	<b>5.86</b>	<b>5.45</b>
1.27	2.00	<b>6.00</b>	<b>5.92</b>	<b>5.84</b>	<b>5.69</b>	<b>5.62</b>	<b>5.38</b>
1.27	3.00	<b>5.52</b>	<b>5.45</b>	<b>5.40</b>	<b>5.29</b>	<b>5.24</b>	<b>5.09</b>

<b>250 mm</b>							
1.59	0.00	<b>9.31</b>	<b>9.07</b>	<b>8.86</b>	<b>8.14</b>	<b>7.72</b>	<b>6.84</b>
1.59	0.50	<b>8.60</b>	<b>8.42</b>	<b>8.26</b>	<b>7.96</b>	<b>7.65</b>	<b>6.84</b>
1.59	1.50	<b>7.64</b>	<b>7.52</b>	<b>7.42</b>	<b>7.22</b>	<b>7.13</b>	<b>6.76</b>
1.59	2.00	<b>7.29</b>	<b>7.19</b>	<b>7.10</b>	<b>6.94</b>	<b>6.86</b>	<b>6.64</b>
1.59	3.00	<b>6.74</b>	<b>6.67</b>	<b>6.60</b>	<b>6.48</b>	<b>6.42</b>	<b>6.25</b>

max. bending strength

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Width 1.00 m, for use in dry conditions, service class 1

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For the thickness 175 and 225 mm we recommend to interpolate the values

Two and multiple span system

Max. distance of the substructure [m] **including swinging analysis**

weight of elements [kN/m <sup>2</sup> ]	dead load floor construction [kN/m <sup>2</sup> ]	life load [kN/m <sup>2</sup> ]					
		1.0	1.5	2.0	3.0	3.5	5.0
<b>thickness 125 mm</b>							
0.79	0.00	<b>4.66</b>	<b>4.51</b>	<b>4.38</b>	<b>4.17</b>	<b>4.08</b>	<b>3.84</b>
0.79	0.50	<b>4.24</b>	<b>4.14</b>	<b>4.05</b>	<b>3.90</b>	<b>3.84</b>	<b>3.67</b>
0.79	1.50	<b>3.74</b>	<b>3.68</b>	<b>3.63</b>	<b>3.54</b>	<b>3.50</b>	<b>3.39</b>
0.79	2.00	<b>3.57</b>	<b>3.53</b>	<b>3.49</b>	<b>3.41</b>	<b>3.38</b>	<b>3.28</b>
0.79	3.00	<b>3.32</b>	<b>3.29</b>	<b>3.26</b>	<b>3.21</b>	<b>3.18</b>	<b>3.11</b>

<b>150 mm</b>							
0.95	0.00	<b>5.16</b>	<b>5.01</b>	<b>4.88</b>	<b>4.67</b>	<b>4.58</b>	<b>4.34</b>
0.95	0.50	<b>4.73</b>	<b>4.64</b>	<b>4.55</b>	<b>4.39</b>	<b>4.32</b>	<b>4.14</b>
0.95	1.50	<b>4.22</b>	<b>4.16</b>	<b>4.10</b>	<b>4.01</b>	<b>3.96</b>	<b>3.84</b>
0.95	2.00	<b>4.04</b>	<b>3.99</b>	<b>3.95</b>	<b>3.86</b>	<b>3.83</b>	<b>3.72</b>
0.95	3.00	<b>3.77</b>	<b>3.73</b>	<b>3.70</b>	<b>3.64</b>	<b>3.61</b>	<b>3.53</b>

<b>200 mm</b>							
1.27	0.00	<b>6.03</b>	<b>5.89</b>	<b>5.77</b>	<b>5.55</b>	<b>5.45</b>	<b>5.21</b>
1.27	0.50	<b>5.62</b>	<b>5.52</b>	<b>5.42</b>	<b>5.26</b>	<b>5.19</b>	<b>4.99</b>
1.27	1.50	<b>5.07</b>	<b>5.01</b>	<b>4.95</b>	<b>4.84</b>	<b>4.79</b>	<b>4.66</b>
1.27	2.00	<b>4.88</b>	<b>4.83</b>	<b>4.78</b>	<b>4.69</b>	<b>4.64</b>	<b>4.52</b>
1.27	3.00	<b>4.57</b>	<b>4.54</b>	<b>4.50</b>	<b>4.43</b>	<b>4.40</b>	<b>4.30</b>

<b>250 mm</b>							
1.59	0.00	<b>6.79</b>	<b>6.66</b>	<b>6.53</b>	<b>6.32</b>	<b>6.23</b>	<b>5.98</b>
1.59	0.50	<b>6.39</b>	<b>6.29</b>	<b>6.20</b>	<b>6.03</b>	<b>5.95</b>	<b>5.75</b>
1.59	1.50	<b>5.83</b>	<b>5.77</b>	<b>5.71</b>	<b>5.59</b>	<b>5.54</b>	<b>5.39</b>
1.59	2.00	<b>5.63</b>	<b>5.57</b>	<b>5.52</b>	<b>5.42</b>	<b>5.37</b>	<b>5.24</b>
1.59	3.00	<b>5.30</b>	<b>5.26</b>	<b>5.22</b>	<b>5.14</b>	<b>5.10</b>	<b>5.00</b>

max. bending strength

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For the thickness 175 and 225 mm we recommend to interpolate the values

Two and multiple span system

Max. distance of the substructure [m] **without swinging analysis** / bending max  $l/300$  or  $l/200$  long time load

weight of elements [kN/m <sup>2</sup> ]	dead load floor construction [kN/m <sup>2</sup> ]	life load [kN/m <sup>2</sup> ]					
		1.0	1.5	2.0	3.0	3.5	5.0
<b>thickness 125 mm</b>							
0.79	0.00	<b>6.63</b>	<b>5.78</b>	<b>5.25</b>	<b>4.57</b>	<b>4.34</b>	<b>3.84</b>
0.79	0.50	<b>6.35</b>	<b>5.78</b>	<b>5.25</b>	<b>4.57</b>	<b>4.34</b>	<b>3.84</b>
0.79	1.50	<b>5.45</b>	<b>5.30</b>	<b>5.15</b>	<b>4.57</b>	<b>4.34</b>	<b>3.84</b>
0.79	2.00	<b>5.15</b>	<b>5.03</b>	<b>4.91</b>	<b>4.56</b>	<b>4.34</b>	<b>3.84</b>
0.79	3.00	<b>4.70</b>	<b>4.61</b>	<b>4.53</b>	<b>4.38</b>	<b>4.27</b>	<b>3.84</b>

<b>150 mm</b>							
0.95	0.00	<b>7.94</b>	<b>6.94</b>	<b>6.30</b>	<b>5.49</b>	<b>5.20</b>	<b>4.60</b>
0.95	0.50	<b>7.40</b>	<b>6.91</b>	<b>6.30</b>	<b>5.49</b>	<b>5.20</b>	<b>4.60</b>
0.95	1.50	<b>6.42</b>	<b>6.25</b>	<b>6.09</b>	<b>5.49</b>	<b>5.20</b>	<b>4.60</b>
0.95	2.00	<b>6.08</b>	<b>5.94</b>	<b>5.81</b>	<b>5.45</b>	<b>5.20</b>	<b>4.60</b>
0.95	3.00	<b>5.57</b>	<b>5.47</b>	<b>5.37</b>	<b>5.20</b>	<b>5.11</b>	<b>4.60</b>

<b>200 mm</b>							
1.27	0.00	<b>9.00</b>	<b>9.00</b>	<b>8.40</b>	<b>7.32</b>	<b>6.94</b>	<b>6.14</b>
1.27	0.50	<b>9.00</b>	<b>9.00</b>	<b>8.40</b>	<b>7.32</b>	<b>6.94</b>	<b>6.14</b>
1.27	1.50	<b>8.26</b>	<b>8.06</b>	<b>7.87</b>	<b>7.29</b>	<b>6.94</b>	<b>6.14</b>
1.27	2.00	<b>7.86</b>	<b>7.70</b>	<b>7.54</b>	<b>7.21</b>	<b>6.92</b>	<b>6.14</b>
1.27	3.00	<b>7.25</b>	<b>7.12</b>	<b>7.01</b>	<b>6.80</b>	<b>6.70</b>	<b>6.14</b>

<b>250 mm</b>							
1.59	0.00	<b>9.00</b>	<b>9.00</b>	<b>9.00</b>	<b>9.00</b>	<b>8.68</b>	<b>7.68</b>
1.59	0.50	<b>9.00</b>	<b>9.00</b>	<b>9.00</b>	<b>9.00</b>	<b>8.68</b>	<b>7.68</b>
1.59	1.50	<b>9.00</b>	<b>9.00</b>	<b>9.00</b>	<b>9.00</b>	<b>8.68</b>	<b>7.68</b>
1.59	2.00	<b>9.00</b>	<b>9.00</b>	<b>9.00</b>	<b>8.88</b>	<b>8.59</b>	<b>7.68</b>
1.59	3.00	<b>8.86</b>	<b>8.72</b>	<b>8.59</b>	<b>8.34</b>	<b>8.23</b>	<b>7.68</b>

Because of max. element length of 18.00 m  
max. bending strength

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Width 1.00 m, for use in dry conditions, service class 1

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### One span system

Max. distance of the substructure [m] bending max  $l/300$  or  $l/200$  long time load

weight of elements [kN/m <sup>2</sup> ]	dead load roof construction [kN/m <sup>2</sup> ]	life load [kN/m <sup>2</sup> ]				
		1.0	1.5	2.0	2.5	3.0
<b>thickness 75 mm</b>						
0.48	0.50	<b>3.18</b>	<b>3.04</b>	<b>2.80</b>	<b>2.59</b>	<b>2.44</b>
0.48	1.00	<b>2.85</b>	<b>2.77</b>	<b>2.70</b>	<b>2.57</b>	<b>2.44</b>
0.48	1.50	<b>2.62</b>	<b>2.56</b>	<b>2.51</b>	<b>2.46</b>	<b>2.40</b>

<b>100 mm</b>						
0.64	0.50	<b>4.08</b>	<b>3.95</b>	<b>3.71</b>	<b>3.46</b>	<b>3.25</b>
0.64	1.00	<b>3.69</b>	<b>3.60</b>	<b>3.51</b>	<b>3.40</b>	<b>3.25</b>
0.64	1.50	<b>3.41</b>	<b>3.34</b>	<b>3.28</b>	<b>3.22</b>	<b>3.17</b>

<b>125 mm</b>						
0.79	0.50	<b>4.93</b>	<b>4.79</b>	<b>4.60</b>	<b>4.33</b>	<b>4.07</b>
0.79	1.00	<b>4.50</b>	<b>4.39</b>	<b>4.30</b>	<b>4.21</b>	<b>4.03</b>
0.79	1.50	<b>4.18</b>	<b>4.10</b>	<b>4.03</b>	<b>3.96</b>	<b>3.90</b>

max. bending strength

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Width 1.00 m, for use in dry conditions, service class 1

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Two or multiple span system

Max. distance of the substructure [m] bending max  $l/300$  or  $l/200$  long time load

weight of elements [kN/m <sup>2</sup> ]	dead load roof construction [kN/m <sup>2</sup> ]	life load [kN/m <sup>2</sup> ]				
		1.0	1.5	2.0	2.5	3.0
<b>thickness 75 mm</b>						
0.48	0.50	<b>3.96</b>	<b>3.47</b>	<b>3.15</b>	<b>2.92</b>	<b>2.74</b>
0.48	1.00	<b>3.68</b>	<b>3.45</b>	<b>3.15</b>	<b>2.92</b>	<b>2.74</b>
0.48	1.50	<b>3.40</b>	<b>3.30</b>	<b>3.13</b>	<b>2.92</b>	<b>2.74</b>

<b>100 mm</b>						
0.64	0.50	<b>5.22</b>	<b>4.63</b>	<b>4.20</b>	<b>3.89</b>	<b>3.66</b>
0.64	1.00	<b>4.78</b>	<b>4.56</b>	<b>4.20</b>	<b>3.89</b>	<b>3.66</b>
0.64	1.50	<b>4.44</b>	<b>4.31</b>	<b>4.14</b>	<b>3.89</b>	<b>3.66</b>

<b>125 mm</b>						
0.79	0.50	<b>6.35</b>	<b>5.78</b>	<b>5.25</b>	<b>4.86</b>	<b>4.57</b>
0.79	1.00	<b>5.84</b>	<b>5.64</b>	<b>5.25</b>	<b>4.86</b>	<b>4.57</b>
0.64	1.50	<b>5.45</b>	<b>5.30</b>	<b>5.15</b>	<b>4.86</b>	<b>4.57</b>

max. bending strength