## Physical Properties

| Product Comparison | 1/2" ( 12.7 mm ) <br> Regular Gypsum <br> Sheathing <br> (Paper-faced) | 1/2" (12.7 mm) DensGlass ${ }^{\text {® }}$ Sheathing | 5/8" ( 15.9 mm ) Gypsum Sheathing, Type X (Paper-faced) | 5/8" (15.9 mm) <br> DensGlass ${ }^{\text {® }}$ <br> Fireguard ${ }^{\text {® }}$ |
| :---: | :---: | :---: | :---: | :---: |
| Width, nominal ${ }^{6}$ | $\begin{aligned} & 4^{\prime}(1219 \mathrm{~mm}) \\ & \pm 3 / 32^{\prime \prime}(2.4 \mathrm{~mm}) \\ & \hline \end{aligned}$ | $\begin{aligned} & 4^{\prime}(1219 \mathrm{~mm}) \\ & \pm 3 / 32^{\prime \prime}(2.4 \mathrm{~mm}) \end{aligned}$ | $\begin{aligned} & 4^{\prime}(1219 \mathrm{~mm}) \\ & \pm 3 / 32^{\prime \prime}(2.4 \mathrm{~mm}) \\ & \hline \end{aligned}$ | $\begin{aligned} & 4^{\prime}(1219 \mathrm{~mm}) \\ & \pm 3 / 32^{\prime \prime}(2.4 \mathrm{~mm}) \\ & \hline \end{aligned}$ |
| Length, standard ${ }^{6}$ | $\begin{aligned} & 8^{\prime}, 9^{\prime}, 10^{\prime} \\ & (2438,2743,3048 \mathrm{~mm}) \\ & \pm 1 / 4^{\prime \prime}(6 \mathrm{~mm}) \\ & \hline \end{aligned}$ | $\begin{aligned} & 8^{\prime}, 9^{\prime}, 10^{\prime} \\ & (2438,2743,3048 \mathrm{~mm}) \\ & \pm 1 / 4^{\prime \prime}(6 \mathrm{~mm}) \end{aligned}$ | $\begin{array}{\|l} \hline 8^{\prime}, 9^{\prime}, 10^{\prime} \\ (2438,2743,3048 \mathrm{~mm}) \\ \pm 1 / 4^{\prime \prime}(6 \mathrm{~mm}) \\ \hline \end{array}$ | $\begin{aligned} & 8^{\prime}, 9^{\prime}, 10^{\prime} \\ & (2438,2743,3048 \mathrm{~mm}) \\ & \pm 1 / 4^{\prime \prime}(6 \mathrm{~mm}) \\ & \hline \end{aligned}$ |
| Weight ${ }^{10}$ nominal, lbs./sq. ft. $\left(\mathrm{Kg} / \mathrm{m}^{2}\right)$ | 1.7 (9) | 1.9 (9) | 2.2 (11) | 2.5 (12) |
| Bending radius (lengthwise) | n/a | $6^{\prime}(1829 \mathrm{~mm})^{7}$ | n/a | $8^{\prime}(2438 \mathrm{~mm})^{7}$ |
| Racking strength, ${ }^{8}$ lbs./ft. (dry) ( $\mathrm{N} / \mathrm{m}$ ) (Ultimate - not design value) | $\begin{array}{\|l} \hline 540^{1} \\ (7878) \\ \hline \end{array}$ | $\begin{array}{\|l} \hline>540 \\ (7878) \\ \hline \end{array}$ | $\begin{array}{\|l} \hline 654^{1} \\ \text { (9544) } \\ \hline \end{array}$ | $\begin{array}{\|l} \hline>654 \\ \text { (9544) } \\ \hline \end{array}$ |
| Flexural strength, ${ }^{3}$ parallel, Ibf. (N) (4' weak direction) | $40^{2}$ (178) | $280^{\circledR}(356)$ | $50^{2}$ (222) | $\geq 100$ (445) |
| Compressive strength | $\begin{aligned} & \hline \text { min. } 350 \text { psi }{ }^{1} \\ & (2400 \mathrm{kPa}) \\ & \hline \end{aligned}$ | $\begin{array}{\|l} \hline \begin{array}{l} \min .500 \mathrm{psi} \\ (3445 \mathrm{kPa}) \end{array} \\ \hline \end{array}$ | $\begin{aligned} & \hline \text { min. } 400 \mathrm{psi}^{1} \\ & (2750 \mathrm{kPa}) \\ & \hline \end{aligned}$ | $\begin{array}{\|l\|} \hline \min .500 \mathrm{psi} \\ (3445 \mathrm{kPa}) \\ \hline \end{array}$ |
| Humidified deflection | 10/8" $(32 \mathrm{~mm})^{1}$ | <2/8" $(6 \mathrm{~mm})^{3.6}$ | $5 / 8{ }^{\prime \prime}(15.9 \mathrm{~mm})^{1}$ | $<1 / 8^{\prime \prime}(3 \mathrm{~mm})^{3.6}$ |
| Permeance, ${ }^{4}$ perms ( $\mathrm{ng} / \mathrm{Pa} \cdot \mathrm{s} \cdot \mathrm{m}^{2}$ ) | 27 [1600]' | $>23$ [1300] | 25 [1400] | >17 [970] |
| R Value ${ }^{5}, \mathrm{ft}^{2} \cdot{ }^{\circ} \mathrm{F} \cdot \mathrm{hr} / \mathrm{BTU}\left(\mathrm{m}^{2} \cdot \mathrm{~K} / \mathrm{W}\right)$ | . 45 (0.079) ${ }^{\prime}$ | . 56 (0.099) | . 56 (0.099) ${ }^{1}$ | . 67 (0.118) |
| Combustibility ${ }^{9}$ | Combustible | Noncombustible | Combustible | Noncombustible |
| Linear expansion with moisture change in/in/\%RH (mm/mm \%RH) | $7.5 \times 10^{-6}$ | $6.25 \times 10^{\text {s. }}$.11 | $7.5 \times 10^{-8}$ | $6.25 \times 10^{6.11}$ |
| Surface burning characteristics (per ASTM E 84 or CAN/ULC-S102): flame spread/smoke developed | 15/0 ${ }^{1}$ | 0/0 | 15/0 ${ }^{1}$ | 0/0 |
| Coefficient of thermal expansion in $/ \mathrm{in} /{ }^{\circ}{ }^{\circ}\left(\mathrm{mm} / \mathrm{mm} /{ }^{\circ} \mathrm{C}\right)$ | $\begin{aligned} & 10 \times 10^{-8} \\ & \left(18 \times 10^{-6}\right) \end{aligned}$ | $\begin{aligned} & 8.5 \times 10^{-6} \\ & \left(15.3 \times 10^{-6}\right)^{12} \end{aligned}$ | $\begin{array}{\|l\|} \hline 10 \times 10^{6} \\ \left(18 \times 10^{6}\right) \\ \hline \end{array}$ | $\begin{aligned} & 8.5 \times 10^{-6} \\ & \left(15.3 \times 10^{-6}\right)^{12} \\ & \hline \end{aligned}$ |

OPTION A:



