

**NFRC 100/200/500 Summary Sheet**  
**2000 Single Hung**

ID	Pane Thickness 1	Gap Width 1	Pane Thickness 2	Gap Width 2	Pane Thickness 3	Gap Width 3	Pane Thickness 4	Gap Fill	Low-e (Surface#)	Tint	Spacer	Grid Type
	U-Factor			Solar Heat Gain Coefficient (SHGC) Grids (None / <1 / >=1)				Visible Transmittance (VT) Grids (None / <1 / >=1)			Condensation Resistance	
1	3/16" Cardinal LoE <sup>2</sup> -272 / 3/16" Clear, COG U-Factor = 0.257, COG Temperature = 55.4°F											
	0.187	0.625	0.187					ARG90	0.042(#2)	CL	A1-D	N
	<b>U-Factor 0.46</b>			<b>SHGC (N) 0.33</b>				<b>VT (N) 0.56</b>			<b>CR 33</b>	
	3/16" Clear / 3/16" Cardinal LoE <sup>2</sup> -272, COG U-Factor = 0.257, COG Temperature = 55.4°F											
	0.187	0.625	0.187					ARG90	0.042(#3)	CL	A1-D	N
	<b>U-Factor 0.46</b>			<b>SHGC (N) 0.40</b>				<b>VT (N) 0.56</b>			<b>CR 33</b>	
2	1/4" Cardinal LoE <sup>2</sup> -272 / 1/4" Clear, COG U-Factor = 0.248, COG Temperature = 55.9°F											
	0.224	0.500	0.223					ARG90	0.042(#2)	CL	A1-D	N
	<b>U-Factor 0.46</b>			<b>SHGC (N) 0.33</b>				<b>VT (N) 0.55</b>			<b>CR 34</b>	
	1/4" Clear / 1/4" Cardinal LoE <sup>2</sup> -272, COG U-Factor = 0.248, COG Temperature = 55.9°F											
	0.223	0.500	0.224					ARG90	0.042(#3)	CL	A1-D	N
	<b>U-Factor 0.46</b>			<b>SHGC (N) 0.39</b>				<b>VT (N) 0.55</b>			<b>CR 34</b>	
3	DS Cardinal LoE <sup>2</sup> -272 / DS Clear, COG U-Factor = 0.266, COG Temperature = 54.9°F											
	0.117	0.750	0.117					ARG90	0.042(#2)	CL	A1-D	N
	<b>U-Factor 0.47</b>			<b>SHGC (N) 0.34</b>				<b>VT (N) 0.57</b>			<b>CR 33</b>	
	DS Clear / DS Cardinal LoE <sup>2</sup> -272, COG U-Factor = 0.266, COG Temperature = 54.9°F											
	0.117	0.750	0.117					ARG90	0.042(#3)	CL	A1-D	N
	<b>U-Factor 0.47</b>			<b>SHGC (N) 0.41</b>				<b>VT (N) 0.57</b>			<b>CR 33</b>	
4	3/16" AFG Comfort E <sup>2</sup> / 3/16" Clear, COG U-Factor = 0.352, COG Temperature = 50.4°F											
	0.183	0.625	0.188					AIR	0.202(#2)	CL	A1-D	N
	<b>U-Factor 0.53</b>			<b>SHGC (N) 0.51</b>				<b>VT (N) 0.59</b>			<b>CR 33</b>	
	3/16" Clear / 3/16" AFG Comfort E <sup>2</sup> , COG U-Factor = 0.352, COG Temperature = 50.4°F											
	0.188	0.625	0.183					AIR	0.202(#3)	CL	A1-D	N
	<b>U-Factor 0.53</b>			<b>SHGC (N) 0.58</b>				<b>VT (N) 0.59</b>			<b>CR 33</b>	
5	1/4" AFG Comfort E <sup>2</sup> / 1/4" Clear, COG U-Factor = 0.344, COG Temperature = 50.8°F											
	0.222	0.500	0.225					AIR	0.202(#2)	CL	A1-D	N
	<b>U-Factor 0.53</b>			<b>SHGC (N) 0.51</b>				<b>VT (N) 0.58</b>			<b>CR 33</b>	
	1/4" Clear / 1/4" AFG Comfort E <sup>2</sup> , COG U-Factor = 0.344, COG Temperature = 50.8°F											
	0.225	0.500	0.222					AIR	0.202(#3)	CL	A1-D	N
	<b>U-Factor 0.53</b>			<b>SHGC (N) 0.55</b>				<b>VT (N) 0.58</b>			<b>CR 33</b>	

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ID	Pane Thickness 1	Gap Width 1	Pane Thickness 2	Gap Width 2	Pane Thickness 3	Gap Width 3	Pane Thickness 4	Gap Fill	Low-e (Surface#)	Tint	Spacer	Grid Type
	U-Factor			Solar Heat Gain Coefficient (SHGC) Grids (None / <1 / >=1)				Visible Transmittance (VT) Grids (None / <1 / >=1)				
6	DS AFG Comfort E <sup>2</sup> / DS Clear, COG U-Factor = 0.362, COG Temperature = 49.9 °F											
	0.122	0.750	0.123					AIR	0.204(#2)	CL	A1-D	N
	<b>U-Factor 0.54</b>			<b>SHGC (N) 0.53</b>				<b>VT (N) 0.60</b>		<b>CR 33</b>		
	DS Clear / DS AFG Comfort E <sup>2</sup> , COG U-Factor = 0.362, COG Temperature = 49.9 °F											
	0.123	0.750	0.122					AIR	0.204(#3)	CL	A1-D	N
	<b>U-Factor 0.54</b>			<b>SHGC (N) 0.59</b>				<b>VT (N) 0.60</b>		<b>CR 33</b>		
7	3/16" PPG Solarban 60 / 3/16" Clear, COG U-Factor = 0.301, COG Temperature = 53.1 °F											
	0.184	0.625	0.184					AIR	0.035(#2)	CL	A1-D	N
	<b>U-Factor 0.50</b>			<b>SHGC (N) 0.31</b>				<b>VT (N) 0.56</b>		<b>CR 33</b>		
	3/16" Clear / 3/16" PPG Solarban 60, COG U-Factor = 0.301, COG Temperature = 53.1 °F											
	0.184	0.625	0.184					AIR	0.035(#3)	CL	A1-D	N
	<b>U-Factor 0.50</b>			<b>SHGC (N) 0.37</b>				<b>VT (N) 0.56</b>		<b>CR 33</b>		
8	1/4" PPG Solarban 60 / 1/4" Clear, COG U-Factor = 0.291, COG Temperature = 53.6 °F											
	0.223	0.500	0.223					AIR	0.035(#2)	CL	A1-D	N
	<b>U-Factor 0.49</b>			<b>SHGC (N) 0.31</b>				<b>VT (N) 0.56</b>		<b>CR 34</b>		
	1/4" Clear / 1/4" PPG Solarban 60, COG U-Factor = 0.291, COG Temperature = 53.6 °F											
	0.223	0.500	0.223					AIR	0.035(#3)	CL	A1-D	N
	<b>U-Factor 0.49</b>			<b>SHGC (N) 0.37</b>				<b>VT (N) 0.56</b>		<b>CR 34</b>		
9	DS PPG Solarban 60 / DS Clear, COG U-Factor = 0.310, COG Temperature = 52.6 °F											
	0.129	0.750	0.129					AIR	0.035(#2)	CL	A1-D	N
	<b>U-Factor 0.50</b>			<b>SHGC (N) 0.32</b>				<b>VT (N) 0.57</b>		<b>CR 33</b>		
	DS Clear / DS PPG Solarban 60, COG U-Factor = 0.310, COG Temperature = 52.6 °F											
	0.129	0.750	0.129					AIR	0.035(#3)	CL	A1-D	N
	<b>U-Factor 0.50</b>			<b>SHGC (N) 0.38</b>				<b>VT (N) 0.57</b>		<b>CR 33</b>		
10	3/16" Clear / 3/16" Clear, COG U-Factor = 0.477, COG Temperature = 43.9 °F											
	0.187	0.625	0.187					AIR		CL	A1-D	N
	<b>U-Factor 0.62</b>			<b>SHGC (N) 0.60</b>				<b>VT (N) 0.64</b>		<b>CR 32</b>		
11	3/16" Clear / 3/16" Clear, COG U-Factor = 0.454, COG Temperature = 45.1 °F											
	0.187	0.625	0.187					ARG90		CL	A1-D	N
	<b>U-Factor 0.60</b>			<b>SHGC (N) 0.60</b>				<b>VT (N) 0.64</b>		<b>CR 32</b>		

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	U-Factor			Solar Heat Gain Coefficient (SHGC) Grids (None / <1 / >=1)				Visible Transmittance (VT) Grids (None / <1 / >=1)			Condensation Resistance	
12	1/4" Clear / 1/4" Clear, COG U-Factor = 0.474, COG Temperature = 44.1 °F											
	0.225	0.500	0.225					AIR		CL	A1-D	N
	<b>U-Factor 0.62</b>			<b>SHGC (N) 0.57</b>				<b>VT (N) 0.62</b>			<b>CR 33</b>	
	1/4" Bronze / 1/4" Clear, COG U-Factor = 0.474, COG Temperature = 44.1 °F											
	0.226	0.500	0.225					AIR		BZ	A1-D	N
	<b>U-Factor 0.62</b>			<b>SHGC (N) 0.41</b>				<b>VT (N) 0.37</b>			<b>CR 33</b>	
	1/4" Gray / 1/4" Clear, COG U-Factor = 0.474, COG Temperature = 44.1 °F											
0.222	0.500	0.225					AIR		GY	A1-D	N	
<b>U-Factor 0.62</b>			<b>SHGC (N) 0.38</b>				<b>VT (N) 0.32</b>			<b>CR 33</b>		
1/4" Green / 1/4" Clear, COG U-Factor = 0.474, COG Temperature = 44.1 °F												
0.222	0.500	0.225					AIR		GR	A1-D	N	
<b>U-Factor 0.62</b>			<b>SHGC (N) 0.40</b>				<b>VT (N) 0.54</b>			<b>CR 33</b>		
13	DS Clear / DS Clear, COG U-Factor = 0.485, COG Temperature = 43.5 °F											
	0.129	0.750	0.129					AIR		CL	A1-D	N
	<b>U-Factor 0.63</b>			<b>SHGC (N) 0.61</b>				<b>VT (N) 0.64</b>			<b>CR 32</b>	
14	1/4" Viracon VE12M / 1/4" Clear, COG U-Factor = 0.293, COG Temperature = 53.5 °F											
	0.223	0.500	0.225					AIR	0.040(#2)	CL	A1-D	N
	<b>U-Factor 0.49</b>			<b>SHGC (N) 0.31</b>				<b>VT (N) 0.55</b>			<b>CR 34</b>	
	1/4" Clear / 1/4" Viracon VE12M, COG U-Factor = 0.293, COG Temperature = 53.5 °F											
	0.225	0.500	0.223					AIR	0.040(#3)	CL	A1-D	N
<b>U-Factor 0.49</b>			<b>SHGC (N) 0.37</b>				<b>VT (N) 0.55</b>			<b>CR 34</b>		
15	3/16" PPG Sungate 500 / 3/16" Clear, COG U-Factor = 0.355, COG Temperature = 50.2 °F											
	0.184	0.625	0.184					AIR	0.215(#2)	CL	A1-D	N
	<b>U-Factor 0.53</b>			<b>SHGC (N) 0.51</b>				<b>VT (N) 0.59</b>			<b>CR 33</b>	
	3/16" Clear / 3/16" PPG Sungate 500, COG U-Factor = 0.355, COG Temperature = 50.2 °F											
	0.184	0.625	0.184					AIR	0.215(#3)	CL	A1-D	N
<b>U-Factor 0.53</b>			<b>SHGC (N) 0.55</b>				<b>VT (N) 0.59</b>			<b>CR 33</b>		
16	3/16" Cardinal LoE <sup>2</sup> 240 / 3/16" Clear, COG U-Factor = 0.262, COG Temperature = 55.1 °F											
	0.187	0.625	0.187					ARG90	0.057(#2)	CL	A1-D	N
	<b>U-Factor 0.47</b>			<b>SHGC (N) 0.20</b>				<b>VT (N) 0.31</b>			<b>CR 33</b>	

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ID	Pane Thickness 1	Gap Width 1	Pane Thickness 2	Gap Width 2	Pane Thickness 3	Gap Width 3	Pane Thickness 4	Gap Fill	Low-e (Surface#)	Tint	Spacer	Grid Type
	U-Factor			Solar Heat Gain Coefficient (SHGC) Grids (None / <1 / >=1)				Visible Transmittance (VT) Grids (None / <1 / >=1)			Condensation Resistance	
	3/16" Clear / 3/16" Cardinal LoE <sup>2</sup> 240, COG U-Factor = 0.262, COG Temperature = 55.1 °F											
	0.187	0.625	0.187					ARG90	0.057(#3)	CL	A1-D	N
	U-Factor 0.47			SHGC (N) 0.41				VT (N) 0.31			CR 33	
17	3/16" Cardinal LoE <sup>3</sup> -366 / 3/16" Clear, COG U-Factor = 0.249, COG Temperature = 55.8 °F											
	0.187	0.625	0.187					ARG90	0.022(#2)	CL	A1-D	N
	U-Factor 0.46			SHGC (N) 0.23				VT (N) 0.50			CR 33	
	3/16" Clear / 3/16" Cardinal LoE <sup>3</sup> -366, COG U-Factor = 0.249, COG Temperature = 55.8 °F											
	0.187	0.625	0.187					ARG90	0.022(#3)	CL	A1-D	N
	U-Factor 0.46			SHGC (N) 0.32				VT (N) 0.50			CR 33	
18	3/16" Cardinal LoE <sup>3</sup> -366 / 3/16" Clear, COG U-Factor = 0.296, COG Temperature = 53.3 °F											
	0.187	0.625	0.187					AIR	0.022(#2)	CL	A1-D	N
	U-Factor 0.49			SHGC (N) 0.23				VT (N) 0.50			CR 33	
	3/16" Clear / 3/16" Cardinal LoE <sup>3</sup> -366, COG U-Factor = 0.296, COG Temperature = 53.3 °F											
	0.187	0.625	0.187					AIR	0.022(#3)	CL	A1-D	N
	U-Factor 0.49			SHGC (N) 0.31				VT (N) 0.50			CR 33	
19	1/4" Solarban 70 / 1/4" Clear, COG U-Factor = 0.285, COG Temperature = 53.9 °F											
	0.223	0.500	0.223					AIR	0.018(#2)	CL	A1-D	N
	U-Factor 0.48			SHGC (N) 0.23				VT (N) 0.51			CR 34	