



**ÇAMSAN ENTEGRE LAMINATE FLOORING QUALITY SPECIFICATIONS**

CHARACTERISTIC	METHOD	KLASİK - AC3 (TSE STANDARD)	SİLVER - AC3 (TSE STANDARD)	MODERN - AC4 (TSE STANDARD)	AVANGARD - AC4 (TSE STANDARD)	PLATINUM - AC4 (TSE STANDARD)	LEGEND - AC5 (TSE STANDARD)	AVANGARD PLUS - AC5 (TSE STANDARD)	PLATINUM PLUS - AC5 (TSE STANDARD)	UNIT		
THICKNESS OF THE ELEMENT (t)	TS EN 13329+A1	$\Delta t_{average} \leq 0,50$ , $t_{max} - t_{min} \leq 0,50$	$\Delta t_{average} \leq 0,50$ , $t_{max} - t_{min} \leq 0,50$	$\Delta t_{average} \leq 0,50$ , $t_{max} - t_{min} \leq 0,50$	$\Delta t_{average} \leq 0,50$ , $t_{max} - t_{min} \leq 0,50$	$\Delta t_{average} \leq 0,50$ , $t_{max} - t_{min} \leq 0,50$	$\Delta t_{average} \leq 0,50$ , $t_{max} - t_{min} \leq 0,50$	$\Delta t_{average} \leq 0,50$ , $t_{max} - t_{min} \leq 0,50$	$\Delta t_{average} \leq 0,50$ , $t_{max} - t_{min} \leq 0,50$	mm		
WIDTH OF THE SURFACE LAYER (W)		$\Delta W_{average} \leq 0,10$ $\Delta W_{average} \leq 0,10$ , $W_{max} - W_{min} \leq 0,20$ $L_{max} - L_{min} \leq 0,20$	$\Delta W_{average} \leq 0,10$ $\Delta W_{average} \leq 0,10$ , $W_{max} - W_{min} \leq 0,20$ $L_{max} - L_{min} \leq 0,20$	$\Delta W_{average} \leq 0,10$ $\Delta W_{average} \leq 0,10$ , $W_{max} - W_{min} \leq 0,20$ $L_{max} - L_{min} \leq 0,20$	$\Delta W_{average} \leq 0,10$ $\Delta W_{average} \leq 0,10$ , $W_{max} - W_{min} \leq 0,20$ $L_{max} - L_{min} \leq 0,20$	$\Delta W_{average} \leq 0,10$ $\Delta W_{average} \leq 0,10$ , $W_{max} - W_{min} \leq 0,20$ $L_{max} - L_{min} \leq 0,20$	$\Delta W_{average} \leq 0,10$ $\Delta W_{average} \leq 0,10$ , $W_{max} - W_{min} \leq 0,20$ $L_{max} - L_{min} \leq 0,20$	$\Delta W_{average} \leq 0,10$ $\Delta W_{average} \leq 0,10$ , $W_{max} - W_{min} \leq 0,20$ $L_{max} - L_{min} \leq 0,20$	$\Delta W_{average} \leq 0,10$ $\Delta W_{average} \leq 0,10$ , $W_{max} - W_{min} \leq 0,20$ $L_{max} - L_{min} \leq 0,20$	$\Delta W_{average} \leq 0,10$ $\Delta W_{average} \leq 0,10$ , $W_{max} - W_{min} \leq 0,20$ $L_{max} - L_{min} \leq 0,20$	$\Delta W_{average} \leq 0,10$ $\Delta W_{average} \leq 0,10$ , $W_{max} - W_{min} \leq 0,20$ $L_{max} - L_{min} \leq 0,20$	mm
LENGTH OF THE SURFACE LAYER (l)		$1 \leq 1500 : \Delta l \leq 0,5$ mm, $1 > 1500 : \Delta l \leq 0,3$ mm/m.	$1 \leq 1500 : \Delta l \leq 0,5$ mm, $1 > 1500 : \Delta l \leq 0,3$ mm/m.	$1 \leq 1500 : \Delta l \leq 0,5$ mm, $1 > 1500 : \Delta l \leq 0,3$ mm/m.	$1 \leq 1500 : \Delta l \leq 0,5$ mm, $1 > 1500 : \Delta l \leq 0,3$ mm/m.	$1 \leq 1500 : \Delta l \leq 0,5$ mm, $1 > 1500 : \Delta l \leq 0,3$ mm/m.	$1 \leq 1500 : \Delta l \leq 0,5$ mm, $1 > 1500 : \Delta l \leq 0,3$ mm/m.	$1 \leq 1500 : \Delta l \leq 0,5$ mm, $1 > 1500 : \Delta l \leq 0,3$ mm/m.	$1 \leq 1500 : \Delta l \leq 0,5$ mm, $1 > 1500 : \Delta l \leq 0,3$ mm/m.	$1 \leq 1500 : \Delta l \leq 0,5$ mm, $1 > 1500 : \Delta l \leq 0,3$ mm/m.	mm	
SQUARENESS OF THE ELEMENT (q)		$q_{max} \leq 0,20$	$q_{max} \leq 0,20$	$q_{max} \leq 0,20$	$q_{max} \leq 0,20$	$q_{max} \leq 0,20$	$q_{max} \leq 0,20$	$q_{max} \leq 0,20$	$q_{max} \leq 0,20$	$q_{max} \leq 0,20$	mm	
STRAIGHTNESS OF THE SURFACE LAYER (s)		$S_{max} \leq 0,30$	$S_{max} \leq 0,30$	$S_{max} \leq 0,30$	$S_{max} \leq 0,30$	$S_{max} \leq 0,30$	$S_{max} \leq 0,30$	$S_{max} \leq 0,30$	$S_{max} \leq 0,30$	$S_{max} \leq 0,30$	mm / m	
FLATNESS OF THE ELEMENT (f)		$f_{w, concave} \leq \% 0,15$ , $f_{w, convex} \leq \% 0,20$ $f_{l, concave} \leq \% 0,50$ , $f_{l, convex} \leq \% 1,00$	$f_{w, concave} \leq \% 0,15$ , $f_{w, convex} \leq \% 0,20$ $f_{l, concave} \leq \% 0,50$ , $f_{l, convex} \leq \% 1,00$	$f_{w, concave} \leq \% 0,15$ , $f_{w, convex} \leq \% 0,20$ $f_{l, concave} \leq \% 0,50$ , $f_{l, convex} \leq \% 1,00$	$f_{w, concave} \leq \% 0,15$ , $f_{w, convex} \leq \% 0,20$ $f_{l, concave} \leq \% 0,50$ , $f_{l, convex} \leq \% 1,00$	$f_{w, concave} \leq \% 0,15$ , $f_{w, convex} \leq \% 0,20$ $f_{l, concave} \leq \% 0,50$ , $f_{l, convex} \leq \% 1,00$	$f_{w, concave} \leq \% 0,15$ , $f_{w, convex} \leq \% 0,20$ $f_{l, concave} \leq \% 0,50$ , $f_{l, convex} \leq \% 1,00$	$f_{w, concave} \leq \% 0,15$ , $f_{w, convex} \leq \% 0,20$ $f_{l, concave} \leq \% 0,50$ , $f_{l, convex} \leq \% 1,00$	$f_{w, concave} \leq \% 0,15$ , $f_{w, convex} \leq \% 0,20$ $f_{l, concave} \leq \% 0,50$ , $f_{l, convex} \leq \% 1,00$	$f_{w, concave} \leq \% 0,15$ , $f_{w, convex} \leq \% 0,20$ $f_{l, concave} \leq \% 0,50$ , $f_{l, convex} \leq \% 1,00$	mm	
OPENING BETWEEN ELEMENTS(O)	$O_{average} \leq 0,15$ , $O_{max} \leq 0,20$	$O_{average} \leq 0,15$ , $O_{max} \leq 0,20$	$O_{average} \leq 0,15$ , $O_{max} \leq 0,20$	$O_{average} \leq 0,15$ , $O_{max} \leq 0,20$	$O_{average} \leq 0,15$ , $O_{max} \leq 0,20$	$O_{average} \leq 0,15$ , $O_{max} \leq 0,20$	$O_{average} \leq 0,15$ , $O_{max} \leq 0,20$	$O_{average} \leq 0,15$ , $O_{max} \leq 0,20$	$O_{average} \leq 0,15$ , $O_{max} \leq 0,20$	mm		
HEIGHT DIFFERENCE BETWEEN ELEMENTS	$h_{average} \leq 0,10$ , $h_{max} \leq 0,15$	$h_{average} \leq 0,10$ , $h_{max} \leq 0,15$	$h_{average} \leq 0,10$ , $h_{max} \leq 0,15$	$h_{average} \leq 0,10$ , $h_{max} \leq 0,15$	$h_{average} \leq 0,10$ , $h_{max} \leq 0,15$	$h_{average} \leq 0,10$ , $h_{max} \leq 0,15$	$h_{average} \leq 0,10$ , $h_{max} \leq 0,15$	$h_{average} \leq 0,10$ , $h_{max} \leq 0,15$	$h_{average} \leq 0,10$ , $h_{max} \leq 0,15$	mm		
SURFACE SOUNDNESS	TS EN 13329 / TS EN 311	AC3 $\geq 1,00$	AC3 $\geq 1,00$	AC3 $\geq 1,00$	AC4 $\geq 1,25$	AC4 $\geq 1,25$	AC5 $\geq 1,25$	AC5 $\geq 1,25$	AC5 $\geq 1,25$	N / mm <sup>2</sup>		
THICKNESS SWELLING	TS EN 13329	$\leq \% 18$	$\leq \% 18$	$\leq \% 18$	$\leq \% 18$	$\leq \% 18$	$\leq \% 15$	$\leq \% 15$	$\leq \% 15$	%		
HUMIDITY	TS EN 322	$\% 4 \leq H \leq \% 10$ $H_{max} - H_{min} \leq \% 3$	$\% 4 \leq H \leq \% 10$ $H_{max} - H_{min} \leq \% 3$	$\% 4 \leq H \leq \% 10$ $H_{max} - H_{min} \leq \% 3$	$\% 4 \leq H \leq \% 10$ $H_{max} - H_{min} \leq \% 3$	$\% 4 \leq H \leq \% 10$ $H_{max} - H_{min} \leq \% 3$	$\% 4 \leq H \leq \% 10$ $H_{max} - H_{min} \leq \% 3$	$\% 4 \leq H \leq \% 10$ $H_{max} - H_{min} \leq \% 3$	$\% 4 \leq H \leq \% 10$ $H_{max} - H_{min} \leq \% 3$	%		
FREE FORMALDEHYDE AMOUNT	TS EN 12460-3	E0: $\leq 1,75$ E1: $1,75 < x \leq 3,50$	E0: $\leq 1,75$ E1: $1,75 < x \leq 3,50$	E0: $\leq 1,75$ E1: $1,75 < x \leq 3,50$	E0: $\leq 1,75$ E1: $1,75 < x \leq 3,50$	E0: $\leq 1,75$ E1: $1,75 < x \leq 3,50$	E0: $\leq 1,75$ E1: $1,75 < x \leq 3,50$	E0: $\leq 1,75$ E1: $1,75 < x \leq 3,50$	E0: $\leq 1,75$ E1: $1,75 < x \leq 3,50$	mg / m <sup>2</sup> . h		
DIMENSIONAL VARIATIONS AFTER CHANGES IN RELATIVE HUMIDITY	TS EN 13329 / TS EN 318	$\delta l_{average} \leq 0,9$ , $\delta W_{average} \leq 0,9$	$\delta l_{average} \leq 0,9$ , $\delta W_{average} \leq 0,9$	$\delta l_{average} \leq 0,9$ , $\delta W_{average} \leq 0,9$	$\delta l_{average} \leq 0,9$ , $\delta W_{average} \leq 0,9$	$\delta l_{average} \leq 0,9$ , $\delta W_{average} \leq 0,9$	$\delta l_{average} \leq 0,9$ , $\delta W_{average} \leq 0,9$	$\delta l_{average} \leq 0,9$ , $\delta W_{average} \leq 0,9$	$\delta l_{average} \leq 0,9$ , $\delta W_{average} \leq 0,9$	mm		
ABRASION RESISTANCE	TS EN 13329	AC3; $\geq 2000$	AC3; $\geq 2000$	AC3; $\geq 2000$	AC4; $\geq 4000$	AC4; $\geq 4000$	AC5; $\geq 6000$	AC5; $\geq 6000$	AC5; $\geq 6000$	Rev		
SMALL-DIAMETER BALL IMPACT RESISTANCE	TS EN 13329 / TS EN 438-2	$\geq 8$ N	$\geq 8$ N	$\geq 8$ N	$\geq 12$ N	$\geq 12$ N	$\geq 15$ N	$\geq 15$ N	$\geq 15$ N	N, mm		
LARGE-DIAMETER BALL IMPACT RESISTANCE	TS EN 13329 / TS EN 438-2	$\geq 500$ mm	$\geq 500$ mm	$\geq 500$ mm	$\geq 750$ mm	$\geq 750$ mm	$\geq 1000$ mm	$\geq 1000$ mm	$\geq 1000$ mm	mm		
RESISTANCE TO STAINING	TS EN 438-2	5 (group 1 ve group 2), 4 (group 3)	5 (group 1 ve group 2), 4 (group 3)	5 (group 1 ve group 2), 4 (group 3)	5 (group 1 ve group 2), 4 (group 3)	5 (group 1 ve group 2), 4 (group 3)	5 (group 1 ve group 2), 4 (group 3)	5 (group 1 ve group 2), 4 (group 3)	5 (group 1 ve group 2), 4 (group 3)	Class		
EFFECT OF A CASTOR CHAIR	TS EN 425	25.000 cycles - no damage	25.000 cycles - no damage	25.000 cycles - no damage	25.000 cycles - no damage	25.000 cycles - no damage	25.000 cycles - no damage	25.000 cycles - no damage	25.000 cycles - no damage	-		
EFFECT OF A FURNITURE LEG	TS EN 424	No damage shall be visible	No damage shall be visible	No damage shall be visible	No damage shall be visible	No damage shall be visible	No damage shall be visible	No damage shall be visible	No damage shall be visible	-		
APPEARANCE, SURFACE DEFECTS	TS EN 438-2	Dirtiness ; $\leq 1,00$ mm <sup>2</sup> / m <sup>2</sup> Fiber partial ;Scratches $\leq 10$ mm / m <sup>2</sup> If two kind of defects appear on the same board, the limit values decrease to half.	Dirtiness ; $\leq 1,00$ mm <sup>2</sup> / m <sup>2</sup> Fiber partial ;Scratches $\leq 10$ mm / m <sup>2</sup> If two kind of defects appear on the same board, the limit values decrease to half.	Dirtiness ; $\leq 1,00$ mm <sup>2</sup> / m <sup>2</sup> Fiber partial ;Scratches $\leq 10$ mm / m <sup>2</sup> If two kind of defects appear on the same board, the limit values decrease to half.	Dirtiness ; $\leq 1,00$ mm <sup>2</sup> / m <sup>2</sup> Fiber partial ;Scratches $\leq 10$ mm / m <sup>2</sup> If two kind of defects appear on the same board, the limit values decrease to half.	Dirtiness ; $\leq 1,00$ mm <sup>2</sup> / m <sup>2</sup> Fiber partial ;Scratches $\leq 10$ mm / m <sup>2</sup> If two kind of defects appear on the same board, the limit values decrease to half.	Dirtiness ; $\leq 1,00$ mm <sup>2</sup> / m <sup>2</sup> Fiber partial ;Scratches $\leq 10$ mm / m <sup>2</sup> If two kind of defects appear on the same board, the limit values decrease to half.	Dirtiness ; $\leq 1,00$ mm <sup>2</sup> / m <sup>2</sup> Fiber partial ;Scratches $\leq 10$ mm / m <sup>2</sup> If two kind of defects appear on the same board, the limit values decrease to half.	Dirtiness ; $\leq 1,00$ mm <sup>2</sup> / m <sup>2</sup> Fiber partial ;Scratches $\leq 10$ mm / m <sup>2</sup> If two kind of defects appear on the same board, the limit values decrease to half.	-		
STATIC INDENTATION	TS EN ISO 24343-1	$\leq 0,05$	$\leq 0,05$	$\leq 0,05$	$\leq 0,05$	$\leq 0,05$	$\leq 0,05$	$\leq 0,05$	$\leq 0,05$	mm		
LIGHT FASTNESS	TS EN 20105	Not worse than 4	Not worse than 4	Not worse than 4	Not worse than 4	Not worse than 4	Not worse than 4	Not worse than 4	Not worse than 4	-		
LOCKING RESISTANCE	ISO 24334	-	-	-	Fl $\geq 1$ kN/m Fs $\geq 2$ kN/m	Fl $\geq 1$ kN/m Fs $\geq 2$ kN/m	Fl $\geq 1$ kN/m Fs $\geq 2$ kN/m	Fl $\geq 1$ kN/m Fs $\geq 2$ kN/m	Fl $\geq 1$ kN/m Fs $\geq 2$ kN/m	N / mm <sup>2</sup>		