

SKYCORE ACN40RH

SKYCORE ACN40RH series aircraft interior panel material is a very lightweight construction of 2-ply 7781 style fiberglass-phenolic skins on 4 pound per cubic foot, 1/8 inch cell, ¹Nomex[®] honeycomb core of any thickness. This construction exhibits excellent strength to weight ratios, and fulfills the most stringent requirements of flammability, and smoke and toxic gas emission for transportation vehicle interiors.

QUALITY

Founded on years of experience, high quality materials, and a very controlled process, the color, texture, and integrity of this product is guaranteed.

PROPERTIES

SKYCORE ACN40RH is a flat, smooth, honeycomb core composite panel. Shapes are sawed or routed, ditched and potted to form corners, joined with mortise, tenon, and glue techniques, or bracket, screw, and potted insert techniques. Decorative laminates can be applied directly with hot vacuum or pressure techniques, or cold bonded with contact or pressure sensitive adhesives.

TYPICAL APPLICATIONS

Bulkheads	Galley Walls
Ceiling Panels	Lavatory Walls
Closets	Partitions
Crew Rests	Personal Service Units
Dado Panels	Stowage Bins

FORMAT

SKYCORE ACN40RH is available in sheets nominally 48, 54, and 60 inches (1219, 1372, and 1524 mm) wide ± 0.5 inches (± 12.7 mm), by 96 inches (2438 mm) long ± 0.5 inches (± 12.7 mm), and thicknesses from 0.125 inches (3.18 mm) to 1.25 (31.8 mm) inches ± 0.010 inches (± 0.25 mm). Other sizes available upon request.

¹ Nomex[®] is a registered trademark of DuPont

SKYCORE ACN40RH276

CHARACTERISTIC	TEST METHOD	UNIT	TEST VALUE
THICKNESS	Caliper	inch / mm	0.276±0.010 / 7.00±0.25
WEIGHT	ASTM D 461 (11)	lb/ft ² / g/m ²	0.49±0.05 / 2390±240
LONG BEAM FLEXURAL FAILURE LOAD	MIL-STD 401 W (Warp) Dir. / L (Ribbon) Dir.	lbf (per 3 inches)	176 / NA
LONG BEAM FLEXURAL STRENGTH ¹	MIL-STD 401 W (Warp) Dir. / L (Ribbon) Dir.	ksi	29 / NA
SHORT BEAM FLEXURAL FAILURE LOAD	MIL-STD 401 W (Warp) Dir. / L (Ribbon) Dir.	lbf (per 3 inches)	230 / NA
CORE SHEAR STRENGTH ²	MIL-STD 401 W (Warp) Dir. / L (Ribbon) Dir.	psi	149 / NA
CLIMBING DRUM PEEL STRENGTH	MIL-STD 401 W (Warp) Dir. / L (Ribbon) Dir.	lbf (per 3 inches)	45 / NA
HEAT RELEASE	FAR 25.853 (d) FAR 25 App. F Pt. IV	kW/m ² kW min/m ² pass / fail	30 ³ 32 ³ pass ⁴
SMOKE DENSITY	FAR 25.853 (d) FAR 25 App. F Pt. V ASTM E-662	Ds 4-minutes Ds maximum pass / fail	8 ³ 15 ³ pass ⁴
TOXICITY	ATS 1000.001 ISSUE 5 / ABD 0031 HF, HCl, HCN, SO ₂ / H ₂ S, NO / NO ₂ , CO Boeing D6-51377 Section 4.1.1 b. (1) CO, HCN, HF, HCl, SO ₂ , NOx	pass / fail pass / fail	pass ³ pass ⁴ pass ³ pass ⁴
FLAMMABILITY (60 sec)	FAR 25.853 (d) FAR 25 App. F Pt. I	pass / fail	pass ³ pass ⁴

¹ Flexural Strength $F_L = [P*(L-A)]/[4*(H-t)*B*t*1000]$, where F_L = Flexural Strength in Compression (ksi), P = Total Load at Failure (lbs), L = Support Span Length = 20 inches, A = Loading Span Length = 10 inches, t = Facesheet Thickness = 0.021 inches, H = Total Panel Thickness, B = Panel Width = 3 inches

² Core Shear Strength $F_C = [P]/[2*(H-t)*B]$, where F_C = Core Shear Stress (psi), P = Total Load at Failure (lbs), t = Facesheet Thickness = 0.021 inches, H = Total Panel Thickness, B = Panel Width = 3 inches

³ Bare panel

⁴ Decorated panel with a standard AIRDEC F-Series or G-Series decorative laminate applied with pressure sensitive or heat activated adhesive

SKYCORE ACN40RH400

CHARACTERISTIC	TEST METHOD	UNIT	TEST VALUE
THICKNESS	Caliper	inch / mm	0.400±0.010 / 10.2±0.25
WEIGHT	ASTM D 461 (11)	lb/ft ² / g/m ²	0.54±0.054 / 2640±264
LONG BEAM FLEXURAL FAILURE LOAD	MIL-STD 401 W (Warp) Dir. / L (Ribbon) Dir.	lbf (per 3 inches)	270 / NA
LONG BEAM FLEXURAL STRENGTH ¹	MIL-STD 401 W (Warp) Dir. / L (Ribbon) Dir.	ksi	29 / NA
SHORT BEAM FLEXURAL FAILURE LOAD	MIL-STD 401 W (Warp) Dir. / L (Ribbon) Dir.	lbf (per 3 inches)	299 / NA
CORE SHEAR STRENGTH ²	MIL-STD 401 W (Warp) Dir. / L (Ribbon) Dir.	psi	131 / NA
CLIMBING DRUM PEEL STRENGTH	MIL-STD 401 W (Warp) Dir. / L (Ribbon) Dir.	lbf (per 3 inches)	48 / NA
HEAT RELEASE	FAR 25.853 (d) FAR 25 App. F Pt. IV	kW/m ² kW min/m ² pass / fail	30 ³ 32 ³ pass ⁴
SMOKE DENSITY	FAR 25.853 (d) FAR 25 App. F Pt. V ASTM E-662	Ds 4-minutes Ds maximum pass / fail	8 ³ 15 ³ pass ⁴
TOXICITY	ATS 1000.001 ISSUE 5 / ABD 0031 HF, HCl, HCN, SO ₂ / H ₂ S, NO / NO ₂ , CO Boeing D6-51377 Section 4.1.1 b. (1) CO, HCN, HF, HCl, SO ₂ , NOx	pass / fail pass / fail	pass ³ pass ⁴ pass ³ pass ⁴
FLAMMABILITY (60 sec)	FAR 25.853 (d) FAR 25 App. F Pt. I	pass / fail	pass ³ pass ⁴

¹ Flexural Strength $F_L = [P*(L-A)]/[4*(H-t)*B*t*1000]$, where F_L = Flexural Strength in Compression (ksi), P = Total Load at Failure (lbs), L = Support Span Length = 20 inches, A = Loading Span Length = 10 inches, t = Facesheet Thickness = 0.021 inches, H = Total Panel Thickness, B = Panel Width = 3 inches

² Core Shear Strength $F_C = [P]/[2*(H-t)*B]$, where F_C = Core Shear Stress (psi), P = Total Load at Failure (lbs), t = Facesheet Thickness = 0.021 inches, H = Total Panel Thickness, B = Panel Width = 3 inches

³ Bare panel

⁴ Decorated panel with a standard AIRDEC F-Series or G-Series decorative laminate applied with pressure sensitive or heat activated adhesive

SKYCORE ACN40RH526

CHARACTERISTIC	TEST METHOD	UNIT	TEST VALUE
THICKNESS	Caliper	inch / mm	0.526±0.010 / 13.4±0.25
WEIGHT	ASTM D 461 (11)	lb/ft ² / g/m ²	0.60±0.06 / 2930±293
LONG BEAM FLEXURAL FAILURE LOAD	MIL-STD 401 W (Warp) Dir. / L (Ribbon) Dir.	lbf (per 3 inches)	352 / NA
LONG BEAM FLEXURAL STRENGTH ¹	MIL-STD 401 W (Warp) Dir. / L (Ribbon) Dir.	ksi	29 / NA
SHORT BEAM FLEXURAL FAILURE LOAD	MIL-STD 401 W (Warp) Dir. / L (Ribbon) Dir.	lbf (per 3 inches)	382 / NA
CORE SHEAR STRENGTH ²	MIL-STD 401 W (Warp) Dir. / L (Ribbon) Dir.	psi	125 / NA
CLIMBING DRUM PEEL STRENGTH	MIL-STD 401 W (Warp) Dir. / L (Ribbon) Dir.	lbf (per 3 inches)	48 / NA
HEAT RELEASE	FAR 25.853 (d) FAR 25 App. F Pt. IV	kW/m ² kW min/m ² pass / fail	30 ³ 32 ³ pass ⁴
SMOKE DENSITY	FAR 25.853 (d) FAR 25 App. F Pt. V ASTM E-662	Ds 4-minutes Ds maximum pass / fail	8 ³ 15 ³ pass ⁴
TOXICITY	ATS 1000.001 ISSUE 5 / ABD 0031 HF, HCl, HCN, SO ₂ / H ₂ S, NO / NO ₂ , CO Boeing D6-51377 Section 4.1.1 b. (1) CO, HCN, HF, HCl, SO ₂ , NOx	pass / fail pass / fail	pass ³ pass ⁴ pass ³ pass ⁴
FLAMMABILITY (60 sec)	FAR 25.853 (d) FAR 25 App. F Pt. I	pass / fail	pass ³ pass ⁴

¹ Flexural Strength $F_L = [P*(L-A)]/[4*(H-t)*B*t*1000]$, where F_L = Flexural Strength in Compression (ksi), P = Total Load at Failure (lbs), L = Support Span Length = 20 inches, A = Loading Span Length = 10 inches, t = Facesheet Thickness = 0.021 inches, H = Total Panel Thickness, B = Panel Width = 3 inches

² Core Shear Strength $F_C = [P]/[2*(H-t)*B]$, where F_C = Core Shear Stress (psi), P = Total Load at Failure (lbs), t = Facesheet Thickness = 0.021 inches, H = Total Panel Thickness, B = Panel Width = 3 inches

³ Bare panel

⁴ Decorated panel with a standard AIRDEC F-Series or G-Series decorative laminate applied with pressure sensitive or heat activated adhesive

SKYCORE ACN40RH730

CHARACTERISTIC	TEST METHOD	UNIT	TEST VALUE
THICKNESS	Caliper	inch / mm	0.730±0.010 / 18.5±0.25
WEIGHT	ASTM D 461 (11)	lb/ft ² / g/m ²	0.66±0.066 / 3220±322
LONG BEAM FLEXURAL FAILURE LOAD	MIL-STD 401 W (Warp) Dir. / L (Ribbon) Dir.	lbf (per 3 inches)	446 / NA
LONG BEAM FLEXURAL STRENGTH ¹	MIL-STD 401 W (Warp) Dir. / L (Ribbon) Dir.	ksi	26 / NA
SHORT BEAM FLEXURAL FAILURE LOAD	MIL-STD 401 W (Warp) Dir. / L (Ribbon) Dir.	lbf (per 3 inches)	505 / NA
CORE SHEAR STRENGTH ²	MIL-STD 401 W (Warp) Dir. / L (Ribbon) Dir.	psi	118 / NA
CLIMBING DRUM PEEL STRENGTH	MIL-STD 401 W (Warp) Dir. / L (Ribbon) Dir.	lbf (per 3 inches)	43 / NA
HEAT RELEASE	FAR 25.853 (d) FAR 25 App. F Pt. IV	kW/m ² kW min/m ² pass / fail	30 ³ 32 ³ pass ⁴
SMOKE DENSITY	FAR 25.853 (d) FAR 25 App. F Pt. V ASTM E-662	Ds 4-minutes Ds maximum pass / fail	8 ³ 15 ³ pass ⁴
TOXICITY	ATS 1000.001 ISSUE 5 / ABD 0031 HF, HCl, HCN, SO ₂ / H ₂ S, NO / NO ₂ , CO Boeing D6-51377 Section 4.1.1 b. (1) CO, HCN, HF, HCl, SO ₂ , NOx	pass / fail pass / fail	pass ³ pass ⁴ pass ³ pass ⁴
FLAMMABILITY (60 sec)	FAR 25.853 (d) FAR 25 App. F Pt. I	pass / fail	pass ³ pass ⁴

¹ Flexural Strength $F_L = [P*(L-A)]/[4*(H-t)*B*t*1000]$, where F_L = Flexural Strength in Compression (ksi), P = Total Load at Failure (lbs), L = Support Span Length = 20 inches, A = Loading Span Length = 10 inches, t = Facesheet Thickness = 0.021 inches, H = Total Panel Thickness, B = Panel Width = 3 inches

² Core Shear Strength $F_C = [P]/[2*(H-t)*B]$, where F_C = Core Shear Stress (psi), P = Total Load at Failure (lbs), t = Facesheet Thickness = 0.021 inches, H = Total Panel Thickness, B = Panel Width = 3 inches

³ Bare panel

⁴ Decorated panel with a standard AIRDEC F-Series or G-Series decorative laminate applied with pressure sensitive or heat activated adhesive

SKYCORE ACN40RH850

CHARACTERISTIC	TEST METHOD	UNIT	TEST VALUE
THICKNESS	Caliper	inch / mm	0.850±0.010 / 21.6±0.25
WEIGHT	ASTM D 461 (11)	lb/ft ² / g/m ²	0.70±0.07 / 3420±342
LONG BEAM FLEXURAL FAILURE LOAD	MIL-STD 401 W (Warp) Dir. / L (Ribbon) Dir.	lbf (per 3 inches)	560 / NA
LONG BEAM FLEXURAL STRENGTH ¹	MIL-STD 401 W (Warp) Dir. / L (Ribbon) Dir.	ksi	28 / NA
SHORT BEAM FLEXURAL FAILURE LOAD	MIL-STD 401 W (Warp) Dir. / L (Ribbon) Dir.	lbf (per 3 inches)	622 / NA
CORE SHEAR STRENGTH ²	MIL-STD 401 W (Warp) Dir. / L (Ribbon) Dir.	psi	125 / NA
CLIMBING DRUM PEEL STRENGTH	MIL-STD 401 W (Warp) Dir. / L (Ribbon) Dir.	lbf (per 3 inches)	45 / NA
HEAT RELEASE	FAR 25.853 (d) FAR 25 App. F Pt. IV	kW/m ² kW min/m ² pass / fail	30 ³ 32 ³ pass ⁴
SMOKE DENSITY	FAR 25.853 (d) FAR 25 App. F Pt. V ASTM E-662	Ds 4-minutes Ds maximum pass / fail	8 ³ 15 ³ pass ⁴
TOXICITY	Airbus ABD 0031 HF, HCl, HCN, SO ₂ / H ₂ S, NO / NO ₂ , CO Boeing D6-51377 Section 4.1.1 b. (1) CO, HCN, HF, HCl, SO ₂ , NOx	pass / fail pass / fail	pass ³ pass ⁴ pass ³ pass ⁴
FLAMMABILITY (60 sec)	FAR 25.853 (d) FAR 25 App. F Pt. I	pass / fail	pass ³ pass ⁴

¹ Flexural Strength $F_L = [P*(L-A)]/[4*(H-t)*B*t*1000]$, where F_L = Flexural Strength in Compression (ksi), P = Total Load at Failure (lbs), L = Support Span Length = 20 inches, A = Loading Span Length = 10 inches, t = Facesheet Thickness = 0.021 inches, H = Total Panel Thickness, B = Panel Width = 3 inches

² Core Shear Strength $F_C = [P]/[2*(H-t)*B]$, where F_C = Core Shear Stress (psi), P = Total Load at Failure (lbs), t = Facesheet Thickness = 0.021 inches, H = Total Panel Thickness, B = Panel Width = 3 inches

³ Bare panel

⁴ Decorated panel with a standard AIRDEC F-Series or G-Series decorative laminate applied with pressure sensitive or heat activated adhesive

SKYCORE ACN40RH1031

CHARACTERISTIC	TEST METHOD	UNIT	TEST VALUE
THICKNESS	Caliper	inch / mm	1.031±0.010 / 26.2±0.25
WEIGHT	ASTM D 461 (11)	lb/ft ² / g/m ²	0.75±0.075 / 3660±366
LONG BEAM FLEXURAL FAILURE LOAD	MIL-STD 401 W (Warp) Dir. / L (Ribbon) Dir.	lbf (per 3 inches)	578 / NA
LONG BEAM FLEXURAL STRENGTH ¹	MIL-STD 401 W (Warp) Dir. / L (Ribbon) Dir.	ksi	24 / NA
SHORT BEAM FLEXURAL FAILURE LOAD	MIL-STD 401 W (Warp) Dir. / L (Ribbon) Dir.	lbf (per 3 inches)	658 / NA
CORE SHEAR STRENGTH ²	MIL-STD 401 W (Warp) Dir. / L (Ribbon) Dir.	psi	108 / NA
CLIMBING DRUM PEEL STRENGTH	MIL-STD 401 W (Warp) Dir. / L (Ribbon) Dir.	lbf (per 3 inches)	43 / NA
HEAT RELEASE	FAR 25.853 (d) FAR 25 App. F Pt. IV	kW/m ² kW min/m ² pass / fail	30 ³ 32 ³ pass ⁴
SMOKE DENSITY	FAR 25.853 (d) FAR 25 App. F Pt. V ASTM E-662	Ds 4-minutes Ds maximum pass / fail	8 ³ 15 ³ pass ⁴
TOXICITY	Airbus ABD 0031 HF, HCl, HCN, SO ₂ / H ₂ S, NO / NO ₂ , CO Boeing D6-51377 Section 4.1.1 b. (1) CO, HCN, HF, HCl, SO ₂ , NOx	pass / fail pass / fail	pass ³ pass ⁴ pass ³ pass ⁴
FLAMMABILITY (60 sec)	FAR 25.853 (d) FAR 25 App. F Pt. I	pass / fail	pass ³ pass ⁴

¹ Flexural Strength $F_L = [P*(L-A)]/[4*(H-t)*B*t*1000]$, where F_L = Flexural Strength in Compression (ksi), P = Total Load at Failure (lbs), L = Support Span Length = 20 inches, A = Loading Span Length = 10 inches, t = Facesheet Thickness = 0.021 inches, H = Total Panel Thickness, B = Panel Width = 3 inches

² Core Shear Strength $F_C = [P]/[2*(H-t)*B]$, where F_C = Core Shear Stress (psi), P = Total Load at Failure (lbs), t = Facesheet Thickness = 0.021 inches, H = Total Panel Thickness, B = Panel Width = 3 inches

³ Bare panel

⁴ Decorated panel with a standard AIRDEC F-Series or G-Series decorative laminate applied with pressure sensitive or heat activated adhesive