



HQ BANBANSON®
DMP

Testing BEYONDSEAM™ BCI: (JAPAN) Ultra-Breathable PU membrane + C0 RED FABRIC PAIRING

INDUSTRY NORM | >T5 CYCLE = PASS

HARD MODE | >T30 CYCLE = EXCELLENT

TORTURE MODE | >T50 CYCLE = SUPERIOR

Internal Classification: **HARD MODE**

Wash Protocol: **30+ Continuous Cycles**

Surpasses ISO 6330 industry standards

Cycle Profile: **1 Hour @ 40°C per cycle, 30 cycles**

Both side Peel Strength: **Retained 19N - 29N.**

CRACKING THE C0 DILEMMA — A BOND STRONGER THAN THE FABRIC

Adhesive for Face to Face (C0 Treated Face, Extreme Low Surface Energy)



Brand comment: normal delamination after 10-15 (ISO6330) wash cycles.

BEYONDSEAM™ Formulation solution:

Adhesive formulation **bonds directly to the LSE C0-surface.**

Some report: **peel strength have even slightly improved** after 30+ continuous washing cycle.
Because of adhesive Maturation.

Data & Specs:

- Heat press: 130°C, 20s | Cold press: 15°C, 4s.
- Adhesive code Ref: **ULTR249, 278, 279**
- Post-Wash Peel Strength (30 Cycles): Maintained at **19-20 N/25mm.**

Lab Conclusion: We Bypassing the C0 surface tension, the adhesive fully penetrates the low surface energy textile structure, We have broken the destiny that causes traditional adhesives to fail after minimal wash/tumble-dry cycles.



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CRACKING THE C0 DILEMMA — A BOND STRONGER THAN THE FABRIC

Seam Tape Applied to C0 Face (Face-Side Taping)



Brand comment: Conventional seam tapes peel off LSE surfaces almost immediately.

BEYONDSEAM™ Formulation solution:

Banbanson formulation exhibits an extraordinary physical anomaly, the bond strength amplifies post-washing.

Data & Specs:

- Post-Wash Peel Strength (30 Cycles): Averaging **24-29 N/25mm**
- Adhesive code Ref: **ULTR256, 259, 264, 129.**

Conclusion: The tape achieves extreme interfacial penetration on the C0 treated face.

Peak At 29 Newtons, very hard to hand peel, the tape is permanently anchored to the surface, **defying all current industry limitations for exterior taping on C0 fabrics.**



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CRACKING THE C0 DILEMMA — A BOND STRONGER THAN THE FABRIC

Seam Tape Applied to Membrane (PUR Dot-Lamination Backing)



Analysed: The PUR dot PU membran lamination to textile approximately 8N
Brand comment: previous seam tape offer only 8N adhesion, maybe due to PUR Dot lamination.

The BEYONDSEAM™ Formulation solution: Our hot melt viscosity penetrates through the PUR dot matrix during application, gripping the underlying red base fibers (Trans-Membrane Anchoring)

Data & Specs:

- Strong bonding performance: Substrate Structural Failure (Coating ripped off). The tape did not delaminate; it **forcibly tore the PUR coating entirely off the base fabric.**
- Using H&H A1129 Hot air seam sealing machine
- Adhesive code Ref: **ULTR259, ULG68+**
- Post-Wash Peel Strength (10 Cycles): Averaging 23-28 N/25mm
- Post-Wash Peel Strength (30 Cycles): Averaging 23-29 N/25mm



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TORTURE MODE | >T50 CYCLE = SUPERIOR

Internal Classification: HARD MODE

Wash Protocol: 30+ Continuous Cycles

Surpasses ISO 6330 industry standards

Cycle Profile: 1 Hour @ 40°C per cycle, 30 cycles

Both side Peel Strength: Retained 19N - 29N.

CRACKING THE C0 DILEMMA — A BOND STRONGER THAN THE FABRIC

Seam Tape Applied to Membrane (PUR Dot-Lamination Backing)



Analysised: Fabric Limitation : Leaking at ~1,300 - 1,400 mmH2O.

The BEYONDSEAM™ Formulation solution:

Data & Specs:

- BEYONDSEAM™ Tape: 8500-11,000 mmH2O.
- We stopped testing because the fabric drowned.
- The physical bottleneck is the fabric's own coating and hydrostatic limit.
- Adhesive code Ref: **ULTR259,ULG68+**
- Post-Wash Peel Strength (10 Cycles): Averaging 17.5-26 N/25mm



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Adhesive for Face to Face (C0 Treated Face, Extreme Low Surface Energy)

10 cycle | 60mins | 40'c wash | 30 CYCLE | 45MINS | 40'C WASH

CODE NO.

ULTR249 (0.12)	20N	20N
ULTR269 (0.12)	23N	18N
ULTR278 (0.12)	20N	20N
ULTR279 (0.12)	19N	19N

Seam Tape Applied to C0 Face (Face-Side Taping)

10 cycle | 60mins | 40'c wash | 30 CYCLE | 45MINS | 40'C WASH

CODE NO.

ULTR126 (20MM)	24N	26.5N
ULTR129 (20MM)	26N	28N
ULTR244 (20MM)	28N	27N
ULTR256 (20MM)	29N	28N
ULTR264 (20MM)	26N	27N
ULTR276 (20MM)	27.5N	29.5N
ULTR278 (20MM)	25.5N	27.5N

Seam Tape Applied to Membrane (PUR Dot-Lamination Backing)

10 cycle | 45mins | 40'c wash result - water pressure

CODE NO.

ULTR259 (20MM)	26N	8500 mmH2O
ULG68+ (15MM)	17.5N	11000 mmH2O

REMARK: Fabric leaking from 1300 mmH2O



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Subject:

Hot Melt Adhesive Film Bonding Performance on TORAY C0 FABRIC

Test Conditions:

Bonding Type: Fabric-to-Fabric

Substrate: **JAPAN** C0 Fabric

Process Conditions: Hot Press: 130°C, 20s | Cold Press: 15°C, 4s

TENSILE STRENGTH TEST DATA (Unit: **N/20mm**)

No.	Adhesive Film Model	Thickness (mm)	After 10 Wash Cycles (40°C, 60min/cycle)	After 30 Wash Cycles (40°C, 45min/cycle)	After 50 Wash Cycles (40°C, 45min/cycle)
1	ULTR129	0.12	18	16	14
2	ULTR246	0.12	18	17	17
3	ULTR247	0.12	18	14	14
4	ULTR249	0.12	20	20	20
5	ULTR258	0.12	20	14	14
6	ULTR259	0.12	23	14	14
7	ULTR269	0.12	23	18	18
12	ULTR278	0.12	20	20	20
13	ULTR279	0.12	19	19	19



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Date: March 12, 2026

TEST CONDITIONS: Hot Press: 150°C, 15s; Cold Press: 15°C, 4s

No.	Adhesive Model	Thickness (MM)	Pull Force N/20mm 40°C Wash	Pull Force N/20mm 40°C Wash	Pull Force N/20mm 40°C Wash
			10 Cycles (60 min)	30 Cycles (45 min)	50 Cycles (45 min)
1	ULTR129	0.12	18	18	15
2	ULTR246	0.12	18	13	13
3	ULTR247	0.12	20	19	16
4	ULTR249	0.12	22	22	22
5	ULTR258	0.12	20	17	14
6	ULTR259	0.12	23	19	19
7	ULTR269	0.12	23	20	18
12	ULTR278	0.12	20	18	18
13	ULTR279	0.12	19	19	19