

Technical data sheet · Hi-Shrink Tape

208X Hi-Shrink Tape

400°C

752°F use temperature

The highest-temperature shrinkable tape available. A polyimide that consolidates PEEK, PPS, polyimide, cyanate ester, and high-temperature BMI parts — with the force of a 220S, in a standard oven.

Typical properties

Material	Polyimide
Thickness	0.002 in · 0.050 mm
Use temperature	752°F · 400°C
Shrink onset	≈ 158°F · 70°C
MD shrink	8% @150°C · 12% @350°C
Shrink force	8.9 lb/in
Max wrapping tension	30 lb/in
Release	Natural — no coating
Perforated	208Z
Widths · cores	0.5 – 2.5 in · 1.5 / 3.0 in
Shelf life	Indefinite, stored cool and dry

Force at your temperature

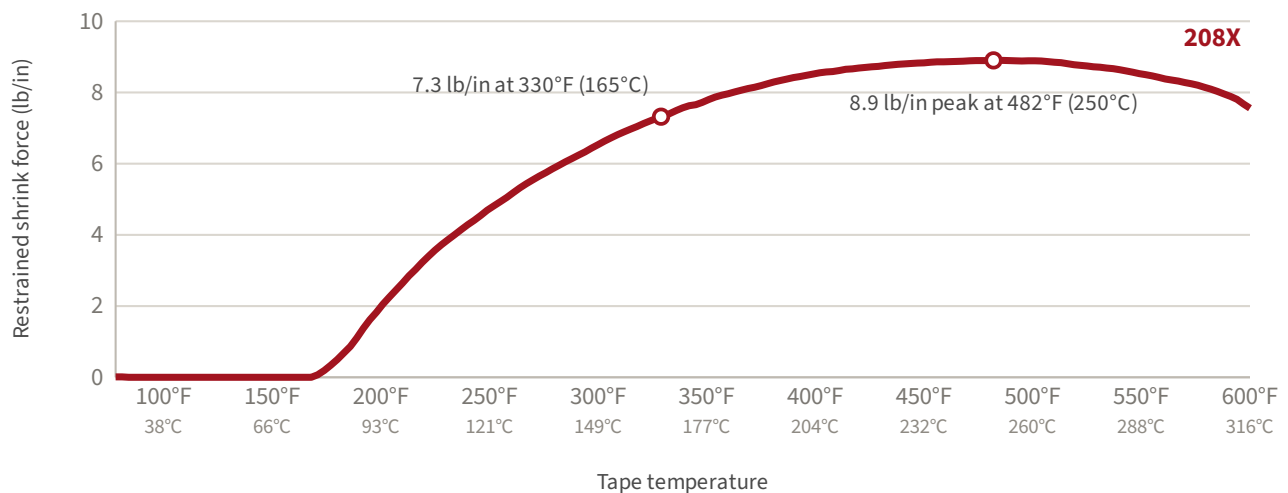
Tape temperature	Force lb/in	Typical use
120°C · 248°F	4 . 6	Force still building — polyester territory
150°C · 302°F	6 . 6	High-temperature epoxy, phenolic
165°C · 329°F	7 . 3	BMI, cyanate ester
200°C · 392°F	8 . 4	Polyimide, phthalonitrile
250°C · 482°F	8 . 9	Peak — PPS consolidation
300°C · 572°F	8 . 3	PEEK entry; test data to 316°C

Where it sits in the line

Tape	Max temp	Force lb/in	Choose it for
220S	165°C	8 . 80	Same force below 165°C, at lower cost
212HT	180°C	1 . 65	165–180°C where 1.65 lb/in is enough
208X	400°C	8 . 9	Above 180°C — nothing else survives

Restrained shrink force — 208X

lab-measured curve shape · zero pre-tension · normalized to the published maximum · lb per inch of width · test run to 600°F



Force begins near 175°F, is still building through the polyester range (7.3 lb/in at 165°C), peaks at 8.9 lb/in near 250°C and holds within 10% of that to 300°C before easing. Shrink % keeps increasing with temperature — 8% at 150°C, 12% at 350°C.

What it is

A 2 mil polyimide film that shrinks progressively: about 8% by 150°C, 12% by 350°C. Polyimide is far stiffer than polyester at temperature, so that modest shrink delivers 8.9 lb/in — the same force as a 220S at 20%. It releases naturally without a coating; 208Z is the perforated version. 208X is a processing aid: it stays on the part only through cure and is selected for the pressure it delivers at consolidation temperature and for clean removal afterward.

Best for

- Thermoplastic consolidation: PEEK (370–400°C), PPS (290–320°C)
- Polyimide, cyanate ester, benzoxazine, phthalonitrile, BMI above 180°C
- Outgassing resins, as perforated 208Z

Not for

- Cures below 180°C, where polyester or ETFE does the job for less
- Maximum force at moderate temperature — below 165°C the 500 Series delivers far more
- Processes that can't tolerate pressure from 70°C on
- Cosmetic surfaces — the stiff film marks more than polyester

How to wrap it

- Shrink starts near 70°C — plan for early pressure on delicate layups
- Wrap at 5–10 lb/in; 30 lb/in is the maximum
- Increase overlap (66.7%, 75%) for more compaction; 208Z where the resin outgasses

High-temperature release systems

Release systems for thermoplastic applications — where the matrix bonds to bare polyimide at consolidation temperature — are in work. If PEEK or PPS release is the question on your part, ask engineering; we may already be testing what you need.

Don't see your configuration?

Custom widths, lengths, and cores are routine — up to 8,000 m on a traverse-wound spool. If it isn't listed, tell us about the application; we would rather find out whether we can make it than let you settle for something close.

Compaction pressure: the five levers

Lever	What it does
1 Tape	Material, thickness, and shrink % set the force per inch of width
2 Wrap tension	Typically 5–10 lb/in; stay at or below the SKU maximum, or the film elongates and delivers less at cure
3 Overlap	Layers over each point: 50% = 2, 66.7% = 3, 75% = 4, 87.5% = 8 — always a whole number everywhere
4 Diameter	Fixed by the part. Pressure $\approx$ layers $\times$ force $\div$ radius — double the diameter, half the pressure
5 Shrink %	And thickness — within polyester, the lever to reach for before changing series

Ordering, samples, and engineering support

Complimentary samples of any in-stock product — shrinktape.com or (440) 505-7640. Application engineering is available for selection, trials, and troubleshooting — sales engineers work with your process engineers, on site where it helps.

Widths 0.5 – 2.5 in in 0.25 in steps · cores 1.5 or 3.0 in ID · handheld rolls 100 yd · flat-pad rolls 750 yd (about 9 in diameter), and flat pads to about 12 in diameter on a 3 in core, length depending on film thickness · traverse-wound spools to 8,000 m · release coat facing outward unless specified (R = OD, I = ID).

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