
INTRODUCTION OF BACKING FILM

Our Backing Film

- Backing Film consist of a grown-in-place napped and micro-porous PU coating over a substrate.
- Its micro-porous configuration shows a vertically oriented pore structure sitting on top of PU foam substrate.
- The gentle springiness is a great nature of micro-porous PU foam and it evenly shares the pressure load generated from polishing process. This provides Backing Film an excellent cushion and carrier pad material for very fine and smooth polishing processes.

Application of Backing Film

- As table pad for placing substrate glass.
- As cushion pad for carrying glass while polishing.
- Suck and hold glass on upper platen for polishing progress.

Material Specification

ITEM	Unit	Lower Limit	Upper Limit
THICKNESS	mm	0.9	1.0
DENSITY	g/cm ³	0.4	0.6
HARDNESS JIS A		18	22
COMPRESSIBILITY	%	25	45
COMPRESSIBILITY RECOVER RATE	%	80	100
HOLDNESS STRENGTH	Kgf	6	10
WATER ABSORPTION	%	0.01	2.00

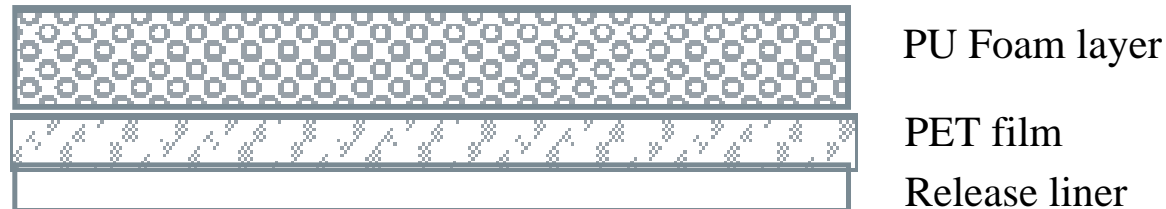
Inspection tools

ITEM	Tools
THICKNESS	Peacock model H thickness gauge
DENSITY	scales
HARDNESS JIS A	Teclock GS-710 and Durometer MODEL 306L softness tster
COMPERSIBILITY	JIS1021
COMPERSIBILITY RECOVER RATE	JIS1021
HOLDNESS STRENGTH	TM
WATER ABSORPTION	TM

Backing Film Comparison Chart

Item		F-company	GMT
Thickness (mm)		1.20mm	1.47mm
Density (g/cm ³)		0.57	0.68
Holding strength		5.3kgf	10kgf
Hardness (shore A)		69	61
JIS1021	Compressibility (%)	37.40%	20.70%
	Recovery rate after compression (%)	86.51%	86.67%
Water absorption	Still for 5mim	0.14%	0.05%
	Compress 30 cycles	0.14%	0.08%

Structure of F-company backing film



- Benefit:
 - good springiness for carrying glass.
 - Easy to attach glass due to polar force and wicking effect.
- Disadvantage:
 - Slurry will pump out when absorb too much water and there is no more space in foam cell.
 - Film life cycle will be limited when cell wall is decomposed. It is the doom of PU.

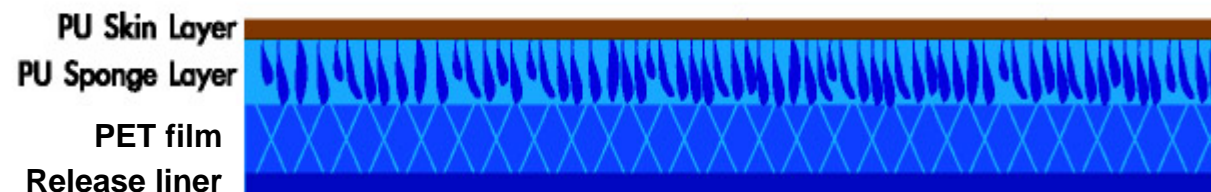
Structure of Backing Film

■ Benefit:

- ❑ good springiness for carrying glass.
- ❑ Easy to attach glass due to polar force and hydrophilic effect.
- ❑ Slurry will not absorb into sponge layer to damage cell wall.

■ Disadvantage:

- ❑ Width will be limited by backing film and maximum is 1000mm at present time.



Comparison of F-company pad with GMT Backing Film

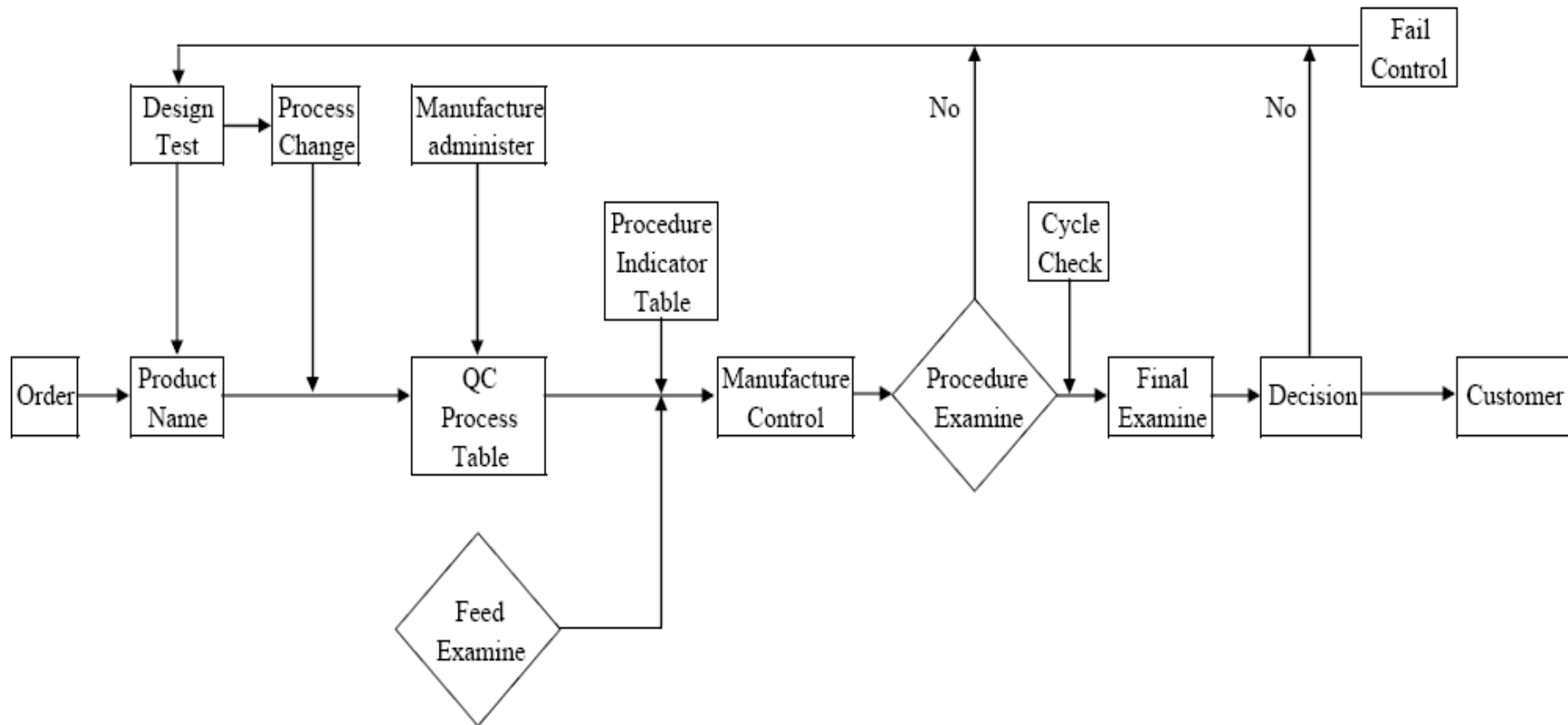
1. GMT backing film pad more soft for can to protect glasses.
2. GMT backing film pad water absorption more lower so water or slurry can not to influence for polish process.
3. GMT backing film pad because is compound structure for to disperse forces effect more good.

Pad Release Liner

- Patented processes for pad release liner.
- Special design to make it easier to take off pad from platen.

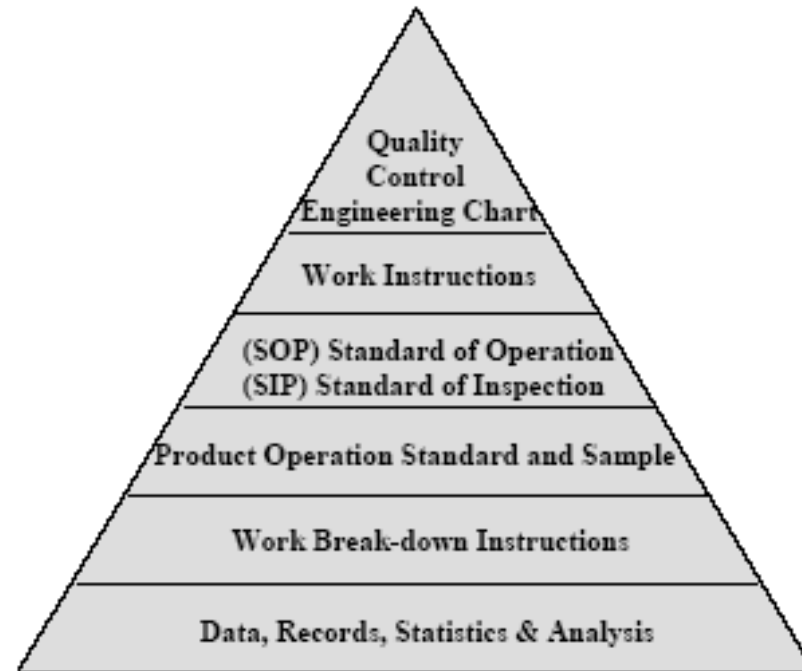
PSA	Attach force to platen	Attach force to pad		
Before improving	0.36kg/cm	0.15 kg/cm		
After improving	0.36kg/cm	0 min	480 min	1440 min
		1.1 kg/cm	0.91 kg/cm	0.90 kg/cm

QC Flowchart

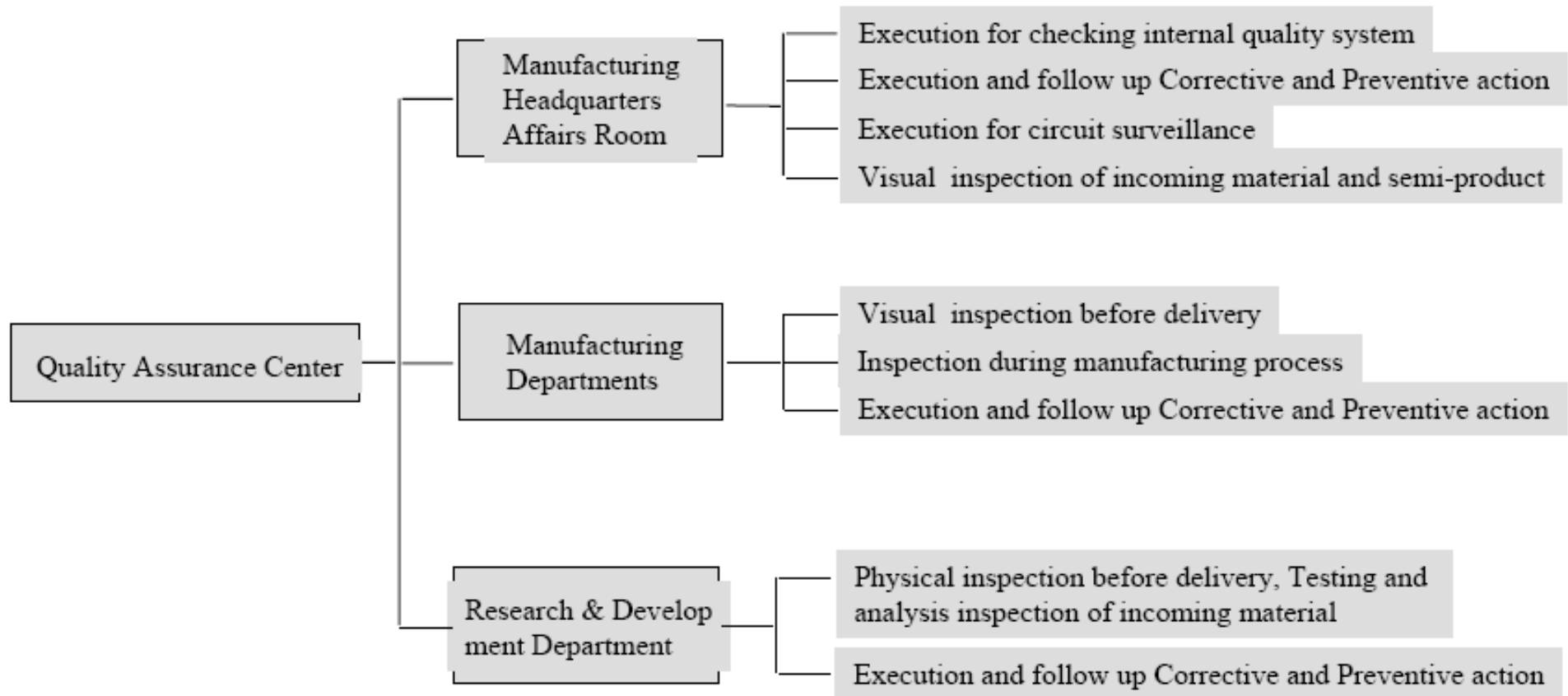


Quality Control

Product QC Structure



Quality Assurance



Storage and Shelf Life

- Backing Film is suggested that it is maintained in its original packaging prior using.
- The pad should always remain in flat in any case.
- The ideal storage status is listed as the following:

Key Factor	Ideal Status
Temperature	Room Temperature (20 ~ 30 °C)
Moisture	$\leq 70 \%$
Pressure	Heavy Pressure is not allowed

- Standard pad life for Backing Film pad is one year under normal storage status and delivery.

Pad Package

- Backing Film are packed in standard clean packs, which are double-bagged in specially treated bags.
- A suitable box and hard plastic panels ensure pads not happen a curving or bending situation during delivery.

Material Disposal and Precautionary Notes

- Please carefully follow the precautions listed on the label when applying this material.
- Keep pads away from untrained personnel in all circumstances.
- Please instruct and apply your local disposal regulations.

Summary

- GMT backing film has better holding strength compared with current pad.
- Easy to attach glass due to polar force and hydrophilic effect.
- Slurry will not absorb into sponge layer to damage cell wall.
- An awesome solution for carrying glass or wafer during polishing process.