

# Felt Sheets

A wide variety of felt material (w/ or w/o adhesive backings) is available in 10 mm increment. Most suitable for cushion, liquid application, grind material.

No Adhesive	Adhesive	Material	Density (g/cm <sup>3</sup> )	Color	Allowable Temperature
FELP	FELPA	Polyester Felt	0.2 (0.18 for 5.5 mm)	White	0-120°C
FELPET	FELPETA	Polyester Felt (with Binder)	0.32	Gray	0-80°C
FELH	FELHA	Polyamide Felt	0.2 (0.27 for 1 mm)	White	-50-250°C
FELWL	FELWLA	Sheep Wool Felt (Rayon, PET blended)	0.25		
FELW	FELWA	Sheep Wool Felt	0.6	Ivory	-10-60°C

Ⓢ Adhesive thickness is 0.06-0.10 mm.

**Dimensional tolerances of A and B**

Dimension	20-200	210-400	410-1000
A	±2	±4	±6
B	±2	±4	±6

Ⓢ A=B

Part Number	T Selection	10 mm Increment	
		A	B
FELP FELPA	1 3 5.5	20-1000	20-950
FELPET FELPETA	5		
FELH FELHA	1 4 6	20-500	20-500
FELWL FELWLA	2 5		
FELW FELWA	10		

**Part Number Example**

Part Number - A - B  
FELP3 - 500 - 350

Part Number	Type	T	A (10 mm Increment)	Available Types B (10 mm Increment)				
				20-200	210-400	410-600	610-800	810-950
No Adhesive FELP	1		20-200	•	—	—	—	—
			210-400	•	•	—	—	—
			410-600	•	•	•	—	—
			610-800	•	•	•	•	—
			810-1000	•	•	•	•	•
Adhesive FELPA	3		20-200	•	—	—	—	—
			210-400	•	•	—	—	—
			410-600	•	•	•	—	—
			610-800	•	•	•	•	—
			810-1000	•	•	•	•	•
Adhesive FELPA	5.5		20-200	•	—	—	—	—
			210-400	•	•	—	—	—
			410-600	•	•	•	—	—
			610-800	•	•	•	•	—
			810-1000	•	•	•	•	•

Part Number	Type	T	A (10 mm Increment)	Available Types B (10 mm Increment)				
				20-100	110-200	210-300	310-400	410-500
No Adhesive FELWL	2		20-100	•	—	—	—	—
			110-200	•	•	—	—	—
			210-300	•	•	•	—	—
			310-400	•	•	•	•	—
			410-500	•	•	•	•	•
Adhesive FELWLA	5		20-100	•	—	—	—	—
			110-200	•	•	—	—	—
			210-300	•	•	•	—	—
			310-400	•	•	•	•	—
			410-500	•	•	•	•	•
Adhesive FELWLA	10		20-100	•	—	—	—	—
			110-200	•	•	—	—	—
			210-300	•	•	•	—	—
			310-400	•	•	•	•	—
			410-500	•	•	•	•	•

Part Number	Type	T	A (10 mm Increment)	Available Types B (10 mm Increment)				
				20-100	110-200	210-300	310-400	410-500
No Adhesive FELPET	5		20-100	•	—	—	—	—
			110-200	•	•	—	—	—
			210-300	•	•	•	—	—
			310-400	•	•	•	•	—
			410-500	•	•	•	•	•
Adhesive FELPETA	1		20-100	•	—	—	—	—
			110-200	•	•	—	—	—
			210-300	•	•	•	—	—
			310-400	•	•	•	•	—
			410-500	•	•	•	•	•
No Adhesive FELH	4		20-100	•	—	—	—	—
			110-200	•	•	—	—	—
			210-300	•	•	•	—	—
			310-400	•	•	•	•	—
			410-500	•	•	•	•	•
Adhesive FELHA	6		20-100	•	—	—	—	—
			110-200	•	•	—	—	—
			210-300	•	•	•	—	—
			310-400	•	•	•	•	—
			410-500	•	•	•	•	•

Part Number	Type	T	A (10 mm Increment)	Available Types B (10 mm Increment)				
				20-100	110-200	210-300	310-400	410-500
No Adhesive FELW	2		20-100	•	—	—	—	—
			110-200	•	•	—	—	—
			210-300	•	•	•	—	—
			310-400	•	•	•	•	—
			410-500	•	•	•	•	•
Adhesive FELWA	5		20-100	•	—	—	—	—
			110-200	•	•	—	—	—
			210-300	•	•	•	—	—
			310-400	•	•	•	•	—
			410-500	•	•	•	•	•
Adhesive FELWA	10		20-100	•	—	—	—	—
			110-200	•	•	—	—	—
			210-300	•	•	•	—	—
			310-400	•	•	•	•	—
			410-500	•	•	•	•	•

# Felt Bumpers

## Washers / Bumpers

Felt material typically used for oil applicators and air-tight gaskets are offered as cushioning washers.

Type	No Adhesive	Adhesive	Material	Density (g/cm <sup>3</sup> )	Color	Allowable Temperature
Washer	WFEP	WFAPA	Polyester Felt	0.2	White	0-120°C
	WFEH	WFEHA	Polyamide Felt			-50-250°C
Cushion	BFEL	BFELA	Polyester Felt	Refer to the following.		-10-60°C

Ⓢ Allowable temperature for adhesive is 0-80°C.

L	Density (g/cm <sup>3</sup> )
10	0.12
20	0.08
30	0.07

## Washers

Part Number	Type	D	V Selection							T Selection
			8	10	12	15	20	25	30	
No Adhesive WFEP WFEH		8	0	3						3 WFEP WFAPA 4 WFEH WFEHA
		10	0	4	6					
		12	0	4	6	8				
Adhesive WFAPA WFEHA		15	0	4	6	8				
		20	0	6	8	10	12			
		25	0	6	8	10	12	16	20	
		30	0	6	8	10	12	16	20	

\* T dimension for Polyester Felt is 3 mm, for Polyamide Felt is 4 mm.

## Bumpers

(L dimensions indicate the length of felt base materials. The values are for reference only.)

Part Number	Type	D	L Selection			V
			10	20	30	
No Adhesive BFEL		20	10	20	30	0
		30	10	20	30	10
Adhesive BFELA		20	10	20	30	0
		30	10	20	30	10

Ⓢ This product, especially L dimension 20 and 30, may deform due to the material proppersion.

**Part Number Example**

Part Number - V - T      Part Number - L - V  
WFEP10 - 4 - 3      BFEL20 - 10 - 10

## Characteristics of Materials

Material	Details of Material	Application Example
Polyester Felt (Sheet)	Felt made of 100% polyester Soft with Density of 0.18-0.2. General-Purpose Product	Applicable to general purpose use as oil / water absorption, cushion, etc.
Polyester Felt (With Binder)	PET:PET binder (bonding material) = 9:1 Fibers bonded together by the binder provides high morphological stability.	Protection material and bumper for portions exposed to high impact.
Polyamide Felt	Felt made of 100% polyamide Excellent Heat / Flame Resistances UL Std. Test V-0 Equivalent	Heat-Resistant / Flame Retardant Bumpers
Sheep Wool Felt (Rayon/PET)	A blend of 60 % sheep wool and 40% PET. JIS-R25W2 Standard product, excellent in oil/water retention ability	Cushion Material / Liquid Application (Oiling) / Spacer
Sheep Wool Felt	Felt made of 100% sheep wool Gives less damage to mating materials.	For Buffed Surface
Polyester Felt (Bumper Type)	Density may vary depending on L dimensions.	Oil application to work piece

\*The application examples above are references not guaranteed.