Felts—Wool and Part Wool —SAE J314b

SAE Standard
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THIS IS A PREPRINT AND WILL
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PREPRINT

FELTS—WOOL AND PART WOOL—SAE J314b

SAE Standard

Report of Parts and Fittings Division approved July 1923 and last revised by Nonmetallic Materials Committee January 1976.

1. Scope—This SAE Standard covers types and qualities of felts required for general automotive uses. It was developed with the cooperation of the Standardization Committee of the Felt Association, Inc., and in accordance with the ASTM tests indicated in the standard.

The commercial trade designations of the more commonly used grades of automotive felts are given along with complete specifications and tolerances for thickness, mass, wool content, chemical and physical requirements, color, and width.

General information, recommended uses, etc., are published in an Appendix as a guide in the selection of felts for particular uses, but the requirements for each application should be taken into consideration in making final selections.

2. Chemical and Mechanical Properties

2.1 The chemical and mechanical requirements for the several grades of automotive felts given in Table 1 include actual wool content (chemical basis), methyl chloroform soluble (percentage of residual oil and grease), water soluble (sizing and nonfibrous impurities), ash (the amount of residual inorganic matter), tensile strength, and splitting resistance.

2.2 All tests shall be made in accordance with ASTM D461, Standard Methods of Testing Wool Felt. If it is desired to detect the presence of, and identify, fibers other than wool, such as other animal fibers, vegetable, and synthetic fibers, the felt shall be tested as described in ASTM D276, Identification of Fibers in Textiles.

3. Thickness, Width and Mass

3.1 Thickness and mass requirements are given in Table 2.

3.2 Felt shall be furnished in standard width as shown in Table 1, unless otherwise specified.

3.3 The thickness tolerances given in Table 2 vary, depending on the density, thickness, and grade or quality of the felt, and are expressed as the permissible minimum and maximum thickness for each grade and thickness rather than as a percentage variation from the nominal thickness.

3.4 Any density or mass determinations shall be based on the thickness of the felt as ordered and no correction shall be made for variations in the thickness of the felt as received. For example, SAE F-1, back-check felt, in 12.7 mm (½ in) thickness may, according to Table 2, vary in mass from 4.12 to 4.55 kg/m² (7.60 to 8.40 lb/yd²), while the thickness may, according to Table 1, vary from 12.22 to 13.18 mm (0.481 to 0.519 in). The combination of mass and thickness tolerances control the degree of felting or matting of the fibers, in other words, the hardness or the density, and conversely, the resiliency of the finished felt. Therefore, to maintain the normal density for each grade or type of felt, no correction in mass is permitted to compensate for a variation from the nominal thickness as specified.

NOTE TO USERS: The mass or density requirements for the several grades of automotive felts given in Table 2 are expressed as the mass in kilogram per square metre (pounds per square yard) for each commercial thickness. This is the established standard unit of mass employed in the felt industry. Density may also be expressed as the mass in grams per cubic centimeter (ounces per cubic inch), specific gravity as compared with water, percentage specific gravity (specific gravity × 100), or as surface density in kilograms per square metre (pounds per square yard) of nominal 25.4 mm (1 in) thickness. The mass or density of cut parts may be expressed as the mass per one hundred (100) parts based on the nominal mass of the felt in the thickness specified.

4. Other Requirements

4.1 Color requirements are given in Table 1.

4.2 Special sizing, adhesives, and impregnating materials used to impart specific properties may alter the chemical and physical requirements specified in Table 1. The specific properties and methods of test for special products shall be agreed upon by supplier and purchaser.

4.3 When specified by purchaser for ball and roller bearing oil retaining washers felt shall be sheared on both sides to give a smooth surface free from "surface fuzz" or "flock."

4.4 The quality, appearance, and oil absorption characteristics may be specified by the purchaser to be in accord with approved samples.

TABLE 1—STANDARD MECHANICAL ROLL FELT SPECIFICATIONS

SAE No.	Min Actual Wool Content, %	Max Methyl Chloroform Soluble, %	Max Water Soluble, %	Max Combined Methyl Chloroform and Water, %	Max Ash, %	Min Tensile Strength		Min Splitting Resistance[b]		Trade Designation	Color	Standard Width	
						kPa	psi	N 5 cm width	lb 2 in. width			cm	in.
F-1	95	2.5	2.5	3.0	1.5	3450	500	142	32	Back check	White	152	60
F-2	90	2.5	2.5	4.0	2.0	3450	500	125	28	Back check	Any color except gray or black	152	60
F-3	85	2.5	3.0	4.5	2.5	2760	400	98	22	Back check	Grey	152	60
F-5	95	2.5	2.5	3.0	2.0	2760	400	80	18	Extra firm pad	White	152	60
F-6	87	2.5	2.5	4.5	2.5	1900	275	71	16	Extra firm pad	Grey	152 or 183	60 or 72
F-7	80	3.0	4.0	7.0	3.0	1730	250	53	12	Extra firm pad	Grey	183	72
F-10	95	2.5	2.5	3.0	2.5	1550	225	36	8	Firm pad	White	183	72
F-11	87	3.0	2.5	4.5	3.0	1380	200	27	6	Firm pad	Grey	183	72
F-12	85	4.0	2.5	6.5	3.5	690	100	13	3	Firm pad	Grey	183	72
F-13	75	4.0	4.0	8.0	3.5	518	75	9	2	Firm pad	Grey	183	72
F-15	55	4.0	5.0	9.0	4.0	518	75	9	2	Firm pad	Grey	183	72
F-26	45	8.0	6.0	14.0	5.0	—	—	—	—	Soft pad	Grey	183	72
F-50	95	2.5	2.5	3.0	1.5	3450	500	—	—	Ball bearing felt	White	152 or 183	60 or 72
F-51	92	2.5	2.5	4.5	2.5	2070	300	—	—	Ball bearing felt	Grey	152 or 183	60 or 72
F-55	75	4.0	4.0	8.0	3.0	1380	200	—	—	Lining	Grey or Black	152 or 183	60 or 72

[a] The actual wool content indicates the percent of wool by chemical analysis and is exclusive of traces of other fibers and impurities present in the wool used in fabricating the several grades of felt. For example, SAE F-1, fabricated from 100% wool, may contain incidental traces of cotton and other fibers, residual wool fats, and oils or soaps used in processing which may reduce the actual wool fiber content on analysis to a minimum of 95%.

[b] Splitting resistance is not applicable to felts where the thickness is less than 4.75 mm (3.16 in.). For materials less than 4.75 mm (3/16 in.) in thickness, breaking strength only is recommended as an indicative test.

TABLE 2—STANDARD MECHANICAL ROLL FELT SPECIFICATIONS

SAE No.	Thickness, mm		Thickness, in		Mass, kg/m²		Mass (Weight) lb/yd²	
	Nominal	Limits	Nominal	Limits	Nominal	Limits	Nominal	Limits
F-1[a]	3.1	2.87–3.48	1/8	0.113–0.137	1.08	1.03–1.14	2.0	1.90–2.10
	4.8	4.45–5.11	3/16	0.175–0.201	1.63	1.54–1.71	3.0	2.85–3.15
	6.4	5.99–6.71	1/4	0.236–0.264	2.17	2.06–2.28	4.0	3.80–4.20
	8.0	7.57–8.33	5/16	0.298–0.328	2.71	2.57–2.85	5.0	4.75–5.25
	9.5	9.12–9.93	3/8	0.359–0.391	3.25	3.09–3.41	6.0	5.70–6.30
	12.7	12.22–13.18	1/2	0.481–0.519	4.34	4.12–4.55	8.0	7.60–8.40
	15.9	15.32–16.43	5/8	0.603–0.647	5.42	5.15–5.69	10.0	9.50–10.50
	19.1	18.42–19.69	3/4	0.725–0.775	6.50	6.18–6.83	12.0	11.40–12.60
	22.2	21.51–22.94	7/8	0.847–0.903	7.59	7.21–7.97	14.0	13.30–14.70
	25.4	24.61–26.19	1	0.969–1.031	8.67	8.24–9.11	16.0	15.20–16.80
F-2	3.1	2.87–3.48	1/8	0.113–0.137	1.08	1.03–1.14	2.0	1.90–2.10
	4.8	4.45–5.11	3/16	0.175–0.201	1.63	1.54–1.71	3.0	2.85–3.15
	6.4	5.99–6.71	1/4	0.236–0.264	2.17	2.06–2.28	4.0	3.80–4.20
	8.0	7.57–8.33	5/16	0.298–0.328	2.71	2.57–2.85	5.0	4.75–5.25
	9.5	9.12–9.93	3/8	0.359–0.391	3.25	3.09–3.41	6.0	5.70–6.30
	12.7	12.22–13.18	1/2	0.481–0.519	4.34	4.12–4.55	8.0	7.60–8.40
	15.9	15.32–16.43	5/8	0.603–0.647	5.42	5.15–5.69	10.0	9.50–10.50
	19.1	18.42–19.69	3/4	0.725–0.775	6.50	6.18–6.83	12.0	11.40–12.60
	22.2	21.51–22.94	7/8	0.847–0.903	7.59	7.21–7.97	14.0	13.30–14.70
	25.4	24.61–26.19	1	0.969–1.031	8.67	8.24–9.11	16.0	15.20–16.80
F-3[a]	3.1	2.87–3.48	1/8	0.113–0.137	1.07	0.98–1.14	1.97	1.80–2.10
	4.8	4.45–5.11	3/16	0.175–0.201	1.59	1.47–1.71	2.93	2.71–3.15
	6.4	5.99–6.71	1/4	0.236–0.264	2.11	1.96–2.27	3.90	3.61–4.19
	8.0	7.57–8.33	5/16	0.298–0.328	2.64	2.44–2.84	4.87	4.50–5.24
	9.5	9.12–9.93	3/8	0.359–0.391	3.17	2.93–3.41	5.85	5.41–6.29
	12.7	12.22–13.18	1/2	0.481–0.519	4.23	3.91–4.55	7.80	7.21–8.39
	15.9	15.32–16.43	5/8	0.603–0.647	5.28	4.88–5.69	9.75	9.01–10.49
	19.1	18.42–19.69	3/4	0.725–0.775	6.34	5.86–6.82	11.70	10.81–12.59
	22.2	21.51–22.94	7/8	0.847–0.903	7.40	6.83–7.96	13.65	12.61–14.69
	25.4	24.61–26.19	1	0.969–1.031	8.46	7.81–9.10	15.60	14.41–16.79
F-5	3.1	2.82–3.53	1/8	0.111–0.139	0.83	0.79–0.87	1.53	1.45–1.61
	4.8	4.37–5.18	3/16	0.172–0.204	1.24	1.18–1.31	2.29	2.17–2.41
	6.4	5.89–6.81	1/4	0.232–0.268	1.66	1.57–1.75	3.06	2.90–3.22
	8.0	7.44–8.46	5/16	0.293–0.333	2.07	1.96–2.18	3.82	3.62–4.02
	9.5	8.97–10.08	3/8	0.353–0.397	2.49	2.36–2.62	4.59	4.35–4.83
	12.7	12.04–13.36	1/2	0.474–0.526	3.32	3.14–3.49	6.12	5.80–6.44
	15.9	15.11–16.64	5/8	0.595–0.655	4.15	3.93–4.36	7.65	7.25–8.05
	19.1	18.19–19.91	3/4	0.716–0.784	4.98	4.72–5.24	9.18	8.70–9.66
	22.2	21.26–23.19	7/8	0.837–0.913	5.80	5.50–6.11	10.71	10.15–11.27
	25.4	24.33–26.47	1	0.958–1.042	6.63	6.29–6.98	12.24	11.60–12.88
F-6	3.1	2.82–3.53	1/8	0.111–0.139	0.83	0.79–0.87	1.53	1.45–1.61
	4.8	4.37–5.18	3/16	0.172–0.204	1.24	1.18–1.31	2.29	2.17–2.41
	6.4	5.89–6.81	1/4	0.232–0.268	1.66	1.57–1.75	3.06	2.90–3.22
	8.0	7.44–8.46	5/16	0.293–0.333	2.07	1.96–2.18	3.82	3.62–4.02
	9.5	8.97–10.08	3/8	0.353–0.397	2.49	2.36–2.62	4.59	4.35–4.83
	12.7	12.04–13.36	1/2	0.474–0.526	3.32	3.14–3.49	6.12	5.80–6.44
	15.9	15.11–16.64	5/8	0.595–0.655	4.15	3.93–4.36	7.65	7.25–8.05
	19.1	18.19–19.91	3/4	0.716–0.784	4.98	4.72–5.24	9.18	8.70–9.66
	22.2	21.26–23.19	7/8	0.837–0.913	5.80	5.50–6.11	10.71	10.15–11.27
	25.4	24.33–26.47	1	0.958–1.042	6.63	6.29–6.98	12.24	11.60–12.88
F-7[a]	3.1	2.82–3.53	1/8	0.111–0.139	0.83	0.79–0.87	1.53	1.45–1.61
	4.8	4.37–5.18	3/16	0.172–0.204	1.24	1.18–1.31	2.29	2.17–2.41
	6.4	5.89–6.81	1/4	0.232–0.268	1.66	1.57–1.75	3.06	2.90–3.22
	8.0	7.44–8.46	5/16	0.293–0.333	2.07	1.96–2.18	3.82	3.62–4.02
	9.5	8.97–10.08	3/8	0.353–0.397	2.49	2.36–2.62	4.59	4.35–4.83
	12.7	12.04–13.36	1/2	0.474–0.526	3.32	3.14–3.49	6.12	5.80–6.44
	15.9	15.11–16.64	5/8	0.595–0.655	4.15	3.93–4.36	7.65	7.25–8.05
	19.1	18.19–19.91	3/4	0.716–0.784	4.98	4.72–5.24	9.18	8.70–9.66
	22.2	21.26–23.19	7/8	0.837–0.913	5.80	5.50–6.11	10.71	10.15–11.27
	25.4	24.33–26.47	1	0.958–1.042	6.63	6.29–6.98	12.24	11.60–12.88
F-10	3.1	2.67–3.68	1/8	0.105–0.145	0.57	0.53–0.62	1.06	0.98–1.14
	4.8	4.19–5.36	3/16	0.165–0.211	0.86	0.80–0.93	1.59	1.47–1.71
	6.4	5.69–7.01	1/4	0.224–0.276	1.15	1.06–1.24	2.12	1.96–2.28
	8.0	7.21–8.69	5/16	0.284–0.342	1.44	1.33–1.54	2.65	2.45–2.85
	9.5	8.71–10.34	3/8	0.343–0.407	1.72	1.59–1.85	3.18	2.94–3.42
	12.7	11.73–13.67	1/2	0.462–0.538	2.30	2.12–2.47	4.24	3.92–4.56
	15.9	14.76–16.99	5/8	0.581–0.669	2.87	2.66–3.09	5.30	4.90–5.70
	19.1	17.78–20.32	3/4	0.700–0.800	3.45	3.19–3.71	6.36	5.88–6.84
	22.2	20.80–23.65	7/8	0.819–0.931	4.02	3.72–4.33	7.42	6.86–7.98
	25.4	23.83–26.97	1	0.938–1.062	4.60	4.25–4.94	8.48	7.84–9.12
F-11	3.1	2.67–3.68	1/8	0.105–0.145	0.57	0.53–0.62	1.06	0.98–1.14
	4.8	4.19–5.36	3/16	0.165–0.211	0.86	0.80–0.93	1.59	1.47–1.71
	6.4	5.69–7.01	1/4	0.224–0.276	1.15	1.06–1.24	2.12	1.96–2.28
	8.0	7.21–8.69	5/16	0.284–0.342	1.44	1.33–1.54	2.65	2.45–2.85
	9.5	8.71–10.34	3/8	0.343–0.407	1.72	1.59–1.85	3.18	2.94–3.42
	12.7	11.73–13.67	1/2	0.462–0.538	2.30	2.12–2.47	4.24	3.92–4.56
	15.9	14.76–16.99	5/8	0.581–0.669	2.87	2.66–3.09	5.30	4.90–5.70
	19.1	17.78–20.32	3/4	0.700–0.800	3.45	3.19–3.71	6.36	5.88–6.84
	22.2	20.80–23.65	7/8	0.819–0.931	4.02	3.72–4.33	7.42	6.86–7.98
	25.4	23.83–26.97	1	0.938–1.062	4.60	4.25–4.94	8.48	7.84–9.12
F-12	3.1	2.67–3.68	1/8	0.105–0.145	0.57	0.53–0.62	1.06	0.98–1.14
	4.8	4.19–5.36	3/16	0.165–0.211	0.86	0.80–0.93	1.59	1.47–1.71
	6.4	5.69–7.01	1/4	0.224–0.276	1.15	1.06–1.24	2.12	1.96–2.28
	8.0	7.21–8.69	5/16	0.284–0.342	1.44	1.33–1.54	2.65	2.45–2.85
	9.5	8.71–10.34	3/8	0.343–0.407	1.72	1.59–1.85	3.18	2.94–3.42
	12.7	11.73–13.67	1/2	0.462–0.538	2.30	2.12–2.47	4.24	3.92–4.56
	15.9	14.76–16.99	5/8	0.581–0.669	2.87	2.66–3.09	5.30	4.90–5.70
	19.1	17.78–20.32	3/4	0.700–0.800	3.45	3.19–3.71	6.36	5.88–6.84
	22.2	20.80–23.65	7/8	0.819–0.931	4.02	3.72–4.33	7.42	6.86–7.98
	25.4	23.83–26.97	1	0.938–1.062	4.60	4.25–4.94	8.48	7.84–9.12

[a] For thicknesses less than 3.14 mm (1/8 in.) for SAE F-1, see SAE F-50; F-3, see SAE F-51; and F-7, see SAE F-55.

TABLE 2—STANDARD MECHANICAL ROLL FELT SPECIFICATIONS (continued)

SAE No.	Thickness, mm		Thickness, in		Mass, kg/m²		Mass (Weight) lb/yd²	
	Nominal	Limits	Nominal	Limits	Nominal	Limits	Nominal	Limits
F-15	3.1	2.67–3.68	1/8	0.105–0.145	0.57	0.53–0.62	1.06	0.98–1.14
	4.8	4.19–5.36	3/16	0.165–0.211	0.86	0.80–0.93	1.59	1.47–1.71
	6.4	5.69–7.01	1/4	0.224–0.276	1.15	1.06–1.24	2.12	1.96–2.28
	8.0	7.21–8.69	5/16	0.284–0.342	1.44	1.33–1.54	2.65	2.45–2.85
	9.5	8.71–10.34	3/8	0.343–0.407	1.72	1.59–1.85	3.18	2.94–3.42
	12.7	11.73–13.67	1/2	0.462–0.538	2.30	2.12–2.47	4.24	3.92–4.56
	15.9	14.76–16.99	5/8	0.581–0.669	2.87	2.66–3.09	5.30	4.90–5.70
	19.1	17.78–20.32	3/4	0.700–0.800	3.45	3.19–3.71	6.36	5.88–6.84
	22.2	20.80–23.65	7/8	0.819–0.931	4.02	3.72–4.33	7.42	6.86–7.98
	25.4	23.83–26.97	1	0.938–1.062	4.06	4.25–4.94	8.48	7.84–9.12
F-15	3.1	2.67–3.68	1/8	0.105–0.145	0.57	0.53–0.62	1.06	0.98–1.14
	4.8	4.19–5.36	3/16	0.165–0.211	0.86	0.80–0.93	1.59	1.47–1.71
	6.4	5.69–7.01	1/4	0.224–0.276	1.15	1.06–1.24	2.12	1.96–2.28
	8.0	7.21–8.69	5/16	0.284–0.342	1.44	1.33–1.54	2.65	2.45–2.85
	9.5	8.71–10.34	3/8	0.343–0.407	1.72	1.59–1.85	3.18	2.94–3.42
	12.7	11.73–13.67	1/2	0.462–0.538	2.30	2.12–2.47	4.24	3.92–4.56
	15.9	14.76–16.99	5/8	0.581–0.669	2.87	2.66–3.09	5.30	4.90–5.70
	19.1	17.78–20.32	3/4	0.700–0.800	3.45	3.19–3.71	6.36	5.88–6.84
	22.2	20.80–23.65	7/8	0.819–0.931	4.02	3.72–4.33	7.42	6.86–7.98
	25.4	23.83–26.97	1	0.938–1.062	4.60	4.25–4.94	8.48	7.84–9.12
F-26	3.1	2.16–4.19	1/8	0.085–0.165	0.49	0.44–0.54	0.90	0.81–0.99
	6.4	4.93–7.77	1/4	0.194–0.306	0.98	0.88–1.07	1.80	1.62–1.98
	9.5	7.70–11.35	3/8	0.303–0.447	1.46	1.32–1.61	2.70	2.43–2.97
	12.7	10.46–14.94	1/2	0.412–0.588	1.95	1.76–2.15	3.60	3.24–3.96
	19.1	16.00–22.10	3/4	0.630–0.870	2.93	2.63–3.22	5.40	4.86–5.94
	25.4	21.54–29.26	1	0.848–1.152	3.90	3.71–4.29	7.20	6.84–7.92
F-50	1.2	1.02–1.37	3/64	0.040–0.054	0.41	0.39–0.43	0.750	0.712–0.788
	1.6	1.42–1.78	1/16	0.056–0.070	0.53	0.51–0.55	0.975	0.937–1.013
	2.0	1.80–2.16	5/64	0.071–0.085	0.65	0.63–0.67	1.200	1.162–1.238
	2.4	2.21–2.57	3/32	0.087–0.101	0.77	0.75–0.79	1.425	1.387–1.463
F-51	1.2	1.02–1.37	3/64	0.040–0.054	0.41	0.39–0.43	0.750	0.712–0.788
	1.6	1.42–1.78	1/16	0.056–0.070	0.53	0.51–0.55	0.975	0.937–1.013
	2.0	1.80–2.16	5/64	0.071–0.085	0.65	0.63–0.67	1.200	1.162–1.238
	2.4	2.21–2.57	3/32	0.087–0.101	0.77	0.75–0.79	1.425	1.387–1.463
F-55	1.6	1.42–1.78	1/16	0.056–0.070	0.41	0.39–0.43	0.750	0.712–0.788
	2.4	2.21–2.57	3/32	0.087–0.101	0.61	0.59–0.63	1.125	1.087–1.163

APPENDIX

(For guidance only; not a part of the specification)

A1. General

A1.1 Felt is a fabric built up by the interlocking of fibers by a suitable combination of mechanical work, chemical action, moisture, and heat, without stitching, weaving, or knitting. Felt may consist of one or more classes of fibers, wool, reprocessed wool, and reused wool, with or without admixture with animal, vegetable, and synthetic fibers.

A1.2 Felt as defined here is commonly referred to as wool felt and does not include needle loomed, woven, synthetically bonded, stitched, quilted, paper, or other materials of felt-like appearance which are products of entirely different constructions and properties.

A1.3 Clip wools or noils, which are the short fiber combings resulting from the preparation of wool for spinning, as well as reprocessed and reused wools are used in the manufacture of automotive felts. The best grades of wool are white and are used without admixture with other fibers in the highest grade felts.

A1.4 Varying amounts of cotton, rayon, and other fibers may be used as a filler to reduce the cost of the felt or to impart certain desired characteristics to the finished material. Traces of cotton are found in most commercial "all-wool" felts.

A1.5 Raw wool contains "wool fat" and "wool perspiration" in addition to mechanically adhering impurities and foreign matter. The foreign matter and some of the wool fat is removed in the scouring operation. Oils and soaps are added in the fabricating process to obtain the necessary degree of felting. Sizing or filler may be used in some of the lower grade felts and in special applications to stiffen or strengthen the finished material. Adhesives and impregnating materials may be used in special purpose felts to impart specific properties.

A1.6 Methyl chloroform soluble, water soluble, and ash determinations indicate the cleanliness of the fiber and the amount of fats, oils, and sizing materials present in the finished product.

A2. Terminology—The terms wool, reprocessed wool, and reused wool are defined essentially in accordance with the Wool Products Labelling Act, 1939, as follows:

A2.1 Wool—The term "wool" means the fiber from the fleece of the sheep or lamb, or hair of the angora or cashmere goat (and may include the so-called specialty fibers from the hair of the camel, alpaca, llama, and vicuna) which has never been reclaimed from any woven or felted wool product.

A2.2 Reprocessed Wool—The term "reprocessed wool" means the resulting fiber when wool has been woven or felted into a wool product which, without ever having been utilized in any way by the ultimate consumer, subsequently has been made into a fibrous state.

A2.3 Reused Wool—The term "reused wool" means the resulting fiber when wool or reprocessed wool has been spun, woven, knitted, or felted into a wool product which, after having been used in any way by the ultimate consumer, subsequently has been made into a fibrous state.

A3. Recommended Uses

A3.1 SAE F-1 is suitable for oil retention in installations where the felt is not compressed, for feeding low viscosity or light oil, and where unusual strength and hardness are required. Washers, bushings, wicks, door bumpers, polishing blocks, and parts where wear and resistance to abrasion are required, are typical uses.

A3.2 SAE F-2 and F-3 are recommended for vibration mountings and the same general purposes as SAE F-1 and where a felt of slightly lower quality is satisfactory. SAE F-5, F-6, and F-7 are recommended for dust shields, wipers, grease retainer washers, wicks, vibration mountings, and in uses where a resilient felt is required.

A3.3 SAE F-10, F-11, and F-12 are recommended for grease and oil retention where the felt is confined and compressed in assembly. Also recommended for dust shields under less severe operating conditions where F-5, F-6, and F-7 are not required.

A3.4 SAE F-13 and F-15 are recommended for sound deadening, chassis strips, spacers, dust shields, pedal pads, dash liners, and for mechanical purposes where abrasion and wear are not important factors.

A3.5 SAE F-26 is suitable for packing or padding when held in place between other materials as in shipping and packaging. This grade should not be used for mechanical purposes.