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ANGLO-AMERICAN VULCANIZED FIBRE**DATA SHEET****'DELANCE' VULCANIZED FIBRE****DESCRIPTION**

'Delance' Vulcanized Fibre is a material manufactured by gelatinizing several plies of high purity cellulose papers. It has extremely high internal bond strength and mechanically excellent punching, forming, machining and many other unique properties.

Vulcanized Fibre has the following general properties :-

Combination of high mechanical strength and dielectric properties.
 Exceptional strength/weight ratio.
 High arc quenching properties both in air and oil.
 Good resistance to wear, fatigue and impact.
 Excellent anti-static and ageing properties.
 Freedom from harmful chemicals, which enables it to be used in direct contact with metals without corrosive effect.
 It is unaffected by organic solvents, petrols, oils and greases.

Typical applications for Vulcanized Fibre include washers, spacers, gaskets, end insulations, slot wedges in electric meters, cable clamps, shutter plates, rickrack panels and dividers.

SPECIFICATIONS

BS. 6091/Type B
 IEC 887/Type B
 DIN. 7737
 ASTM-D-710

Because of the method of manufacture employed, Vulcanized Fibre is normally only offered to the 'general' requirements of the appropriate specification. Full release certification can be given, but this will involve an additional charge.

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TABLE 2**VULCANIZED FIBRE COIL**

MACHINE	MATERIAL THICKNESS		COIL WIDTH		CENTRES
	mm	(in)	mm	(in)	
Standard	0.25-0.4 (0.010-0.016) 0.5 (0.020) 0.6 (0.024)		4.8 (0.187) and above 6.4 (0.250) and above 9.5 (0.375) and above		Spirally wound card- board centres 57mm (2.1/4") inside dia.
Heavy	0.8-1.0 (0.032-0.040) 1.2-1.6 (0.047-0.062)		9.5 (0.375) and above 11.1 (0.437) and above		Centreless 305mm (12") inside dia.
Special (Narrow Coil)	0.6-1.6 (0.025-0.062)		3.54-8.00 (0.140-0.315)		Centreless 102mm (4") or 232mm (9.3/4") inside dia. depending on material thickness.

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TABLE 3**TYPICAL PROPERTIES**

(Based on ASTM - D - 710)

PROPERTY		THICKNESS		UNITS	VALUE	
		mm	(in)			
Density (Min.)		0.38 1.6	(0.015) (0.062)	g/cm ³	1.15	
Tensile Strength (Typical)	ND CD	1.6	(0.062)	psi kgf/mm ²	13,500 7,500	9.5 5.3
Flexural Strength (Min.)	ND CD	1.6	(0.062)	psi kgf/mm ²	20,000 13,000	14.1 9.2
Compressive Strength Flatwise (Typical)		1.6	(0.062)	psi kgf/mm ²	35,000	24.6
Impact Strength Izod, Edgewise (Typical)	ND CD	1.6	(0.062)	ft- lbs/in kgf- cm/cm	2.3 1.8	12.5 9.8
Hardness, Rockwell R Scale (Typical)		1.6	(0.062)	Division	70	
Bursting Strength, Hullen (Typical)		0.38	(0.015)	psi kgf/cm ²	300	21.1
Dielectric Strength (Typical)		0.38 1.6	(0.015) (0.062)	volts kV/mm /mil	175	6.9
Arc Resistance (Typical)		1.6	(0.062)	seconds	100	
Water Absorption (Max.)		1.6	(0.062)	%/2hrs %/24hrs	52 56	
Ash Content (Max.)	Gray Red Black			%	1.0 5.0 1.0	
Zinc Chloride Content (Max.)				%	0.05	
UL94 Flame Class All Colours		above 0.75	above 0.03		94HB	

BS-2757 Thermal Classification - Class 'A' (105°C)

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The data given is believed to be correct but it does not form a specification and may be subject to alteration without notification.

Anglo-American Vulcanized Fibre cannot be aware of all the customer applications and processes for our products, hence, Anglo-American Vulcanized Fibre make no warranty confirming the fitness or suitability of a product for any particular use.

Any proposed application of an Anglo-American Vulcanized Fibre ('Delanco') product should be tested and satisfactory performance independently confirmed.

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TABLE 1**VULCANIZED FIBRE SHEET AND ROLL**

NOMINAL THICKNESS		TOLERANCE +/-	
mm	(in)	mm	(in)
0.25	(0.010)	0.03	(0.001)
0.4	(0.016)	0.04	(0.002)
0.8	(0.032)	0.05	(0.002)
0.6	(0.024)	0.06	(0.002)
0.8	(0.032)	0.08	(0.003)
1.0	(0.040)	0.10	(0.004)
1.2	(0.047)	0.12	(0.005)
1.3	(0.050)	0.15	(0.006)
1.4	(0.055)	0.15	(0.006)
1.6	(0.062)	0.20	(0.008)
2.0	(0.080)	0.20	(0.008)
2.4	(0.094)	0.25	(0.010)
3.2	(0.125)	0.30	(0.012)
4.0	(0.156)	0.30	(0.012)
4.8	(0.187)	0.30	(0.012)
6.4	(0.250)	0.40	(0.016)
9.5	(0.375)	0.50	(0.032)
12.7	(0.500)	0.50	(0.032)

N.B. 'Metric' is used as the prime unit with 'Imperial' common equivalents given for guidance only.

AVAILABILITY

Vulcanized Fibre is available in sheet, roll, coil and rod forms, the latter being made by turning square strips cut from sheet. Stampings and machined components can also be supplied to customer requirements.

Grey Vulcanized Fibre has successfully been used in the majority of applications where 'Leatheroid' was previously specified.

COLOUR : Grey, Red, Black or Blue depending on thickness.

SHEETS : Standard thickness (mm) - 0.8 up to and including 12.7 (see TABLE 1)
Minimum sheet size - 1830 x 1220mm
(72" x 48")
Standard sheets can be supplied cut into halves, thirds or quarters.

ROLLS : Standard thickness (mm) - 0.25 up to and including 1.6 (See TABLE 1)
Minimum roll width - 660mm (26")

COILS : Slit coils are available, the minimum coil width depending on the material thickness and slitting machine employed. (See TABLE 2)
Standard width tolerance - +/- 0.30mm

ROD : Standard diameter (mm) - 2.4 up to and including 6.4 (0.094 - 0.250 in)
Standard tolerance - +/- 0.13mm (0.005 in)

Colour - Depends on diameter.

STORAGE

For general uses, Vulcanized Fibre should be stored where it will maintain its normal moisture content of approximately 5-8%. If subjected to extremely damp conditions, it will pick up moisture and tend to warp and increase its dimensions slightly. If subjected to extremely dry conditions, such as the low humidity that develops in heated rooms during winter, it will tend to dry out. This tends to cause warpage and slight shrinkage in all directions as well as some increase in stiffness and hardness.

It is, therefore, important to avoid storing fibre under extremely damp or extremely dry conditions. A temperature of about 21°C (70°F) and 50% R.H. is recommended.

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