



D.C. WORT COMPOSITES cc

PLASTICS

COMPOSITES

LAMINATES

Vanes

For over 40 years D.C. Wort has manufactured rotor vanes for use in air motors, pumps, compressors and air tools. D.C. Wort use only high pressure laminate materials that meet specific performance characteristics of each demanding rotor vane application. These materials are manufactured for special environmental conditions requiring long wear, resistance to high temperatures, shock, vibration and most chemicals while remaining dimensionally stable.

Description of Vane Materials

ARC-2: Medium weight cotton fabric reinforced high temperature phenolic laminate. Molybdenum disulfide as an internal lubricant is able to withstand high pressure.

ARK-2: Asbestos replacement Kevlar made from propriety high temperature phenolic resin system.

LPFG: Fine weave cotton fabric reinforced phenolic laminate. Contains internal lubricant that increases wear resistance. Recommended for use in small air tools.

LEL-635: Has low water adsorption, stability, high working temperature, excellent wear resistance, very good dimensional stability and excellent chemical resistance. Recommended for use in air tools and air motors.

ARG: Glass reinforced phenolic laminate. Moisture, either as humidity or water, has little dimensional effect. Recommended for use in pumps.

KEY

LW = lengthwise	C = 336/23/98 humidity for 336 hours 23°C
CW = crosswise	D = 24/23 water for 24 hours 23°C
THK = thickness	D = 48/50 water for 48 hours 23°C
COTE = coefficient of thermal expansion	D = 72/23 water for 72 hours 23°C
CON = condition	E = 1/105 temp for 1 hour 105°C
A = as received	E = 48/50 temp for 48 hours

Grade thickness (inches)	Units	ARC-2 .125	ARK-2 .125	ARG-290 .125	EL-635 .125
Max Of Temp	F	300	300	350	285
Water Absorption COND.D-72/23	%	3.54	4.87	0.67	1.58
Density	GM/CM ³	1.38	1.31	1.69	1.35
Flex STR. LW COND.A	PSi	18790	31610	28310	20250
Flex STR. CW COND.A	PSi	15240	30890	24670	16600
Flex MOD. LW COND.A	PSi x 10 ⁶	1.26	1.08	1.84	1.1
Flex MOD. CW COND.A	PSi x 10 ⁶	0.98	0.95	1.56	0.85

This data, while believed to be accurate and based on reliable analytical methods, is for informational purposes only. Data supplied above are "Typical Values", not to be considered "Specification Values".

IZOD Impact LW COND.A	FT-LBS/IN	2.23	13.41	11.17	1.34
Taber Wear Volume Loss After 8 Hours	FT-LBS/IN	0.184	0.308	0.260	0.277
*Bond 1/2" COND.D-A	LBS	2160	1910	1560	1850
*Bond 1/2" COND.D-48/50	LBS	1805	1735	1375	2180
*Cote 3/8" LW	CM/CM/DEG. C x 10 ⁻⁵	1.460	0.474	1.40	1.82
*Cote 3/8" CW	CM/CM/DEG. C x 10 ⁻⁵	2.240	0.375	1.82	2.18
*GRTH HUM 3/8" LW COND.C-336/20/99	IN/IN	0.0005	0.0007	0.0003	0.0002
*GRTH HUM 3/8" CW COND.C-336/20/99	IN/IN	0.0008	0.0007	0.0005	0.0004
*GRTH Water 1/8" LW COND.D-72/23	IN/IN	0.0018	0.0025	0.0004	0.0009
*GRTH Water 1/8" CW COND.D-72/23	IN/IN	0.0030	0.0023	0.0008	0.0016
*GRTH Water 1/8" THK COND.D-72/23	IN/IN	0.0152	0.0118	0.0009	0.0033

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