

AR-750™ JACKETED CONTROL CABLE LINER

Markel AR-750™ Abrasion Resistant Anti-friction Control Cable Liner is designed to provide the maximum service lifetime under high loads of any polymeric liner on the market. A proprietary filled PTFE composite, AR-750™ maintains the beneficial anti-slip stick characteristics of PTFE liners while optimizing wear performance. The ever increasing operating temperature requirements in engine compartments require cable liners that maintain high efficiencies under these aggressive conditions.

AR-750™ in conjunction with silicone lubricants yields efficiencies and cycle life not normally attainable with generic liners. Performance characteristics include 90% average efficiency through 1,000,000 cycles.

APPLICATIONS

- moderate duty cables used in accelerator, clutch and automatic transmission actuator assemblies
- loads up to 25 lbs
- difficult routings
- high service temperatures
- where the longest life cycles are required
- aircraft, heavy duty off-road equipment and industrial controls

DATA POINTS

Operating Temperature	200°C
Tensile Strength	31-44 .MPa (4500-6500 psi)
Elongation	200-400%
Dimensional Capability	Cp/Cpk ID 4.30/3.91 OD 1.786/1.675
Specific Gravity	2.1
Filler	Proprietary Organic
Melt Point	PTFE at 327.91°C
Chemical Resistance	Excellent

KEY FEATURES AND BENEFITS

1. Eliminates “stick-slip.”
2. 90% average efficiency through 1,000,000 cycles with 25 lb. load.
3. Polymeric jacketed liner offers significant weight reduction compared to steel.
4. Specified by major manufacturers of automotive control cables in North America and Europe.

ADDITIONAL OPTIONS

- Sound transmission via structure-born noise path may be reduced with Markel QUIET LINER® designs employing a TPE jacket.
- Jacket can be stabilized to liner with Markel TEFLOCK™ Splined Liner.
- Wear performance and noise reduction may both be further enhanced by employing Markel Waveliner® designs using AR-750™ formulations.
- Markel can jacket the AR-750™ liner with polypropylene, polyethylene, PBT, TPE or nylon. Nylon resins offer a wide range of mechanical and thermal properties including melt temperatures as high as 150°C.



All materials of construction are warranted to meet specification and certified to be made from top quality resins without PFOA surfactant.

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JACKET MATERIAL PROPERTIES

PROPERTY	NYLON 6	NYLON 66	NYLON 12	ACETAL	POLY- PROPYL- ENE-	PBT	COPOLYMER POLY- PROPYLENE
Service Temp, °C	120	135	105	112	115	120	115
Spec. Gravity	1.13	1.14	1.07	1.41	0.93	1.31	0.902
Tensile Strength, MPa psi	48 7,000	84.4 12,300	55 8,000	52 7,429	37.7 5,500	54.9 8,000	24.1 3,500
Elongation, % At Break*	225	90	300	45	200	250	
Flexural Modulus, MPa psi	837 122,000	2,827 410,000	565 82,000	2,500 357,150	1,481 216,000	2,263 330,000	1,000 145,000
% Water Absorption, % 50% RH.	2.2	2.1	0.7	0.2	< 0.1	0.2	<0.1
Flame	UL94HB	UL94V2	UL94HB	UL94HB	UL94V2	UL94HB	UL94HB

*23°C, 50% relative humidity

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