ATPolymer

Energy and Mining
Cables Jacket Material Solution (TPU)

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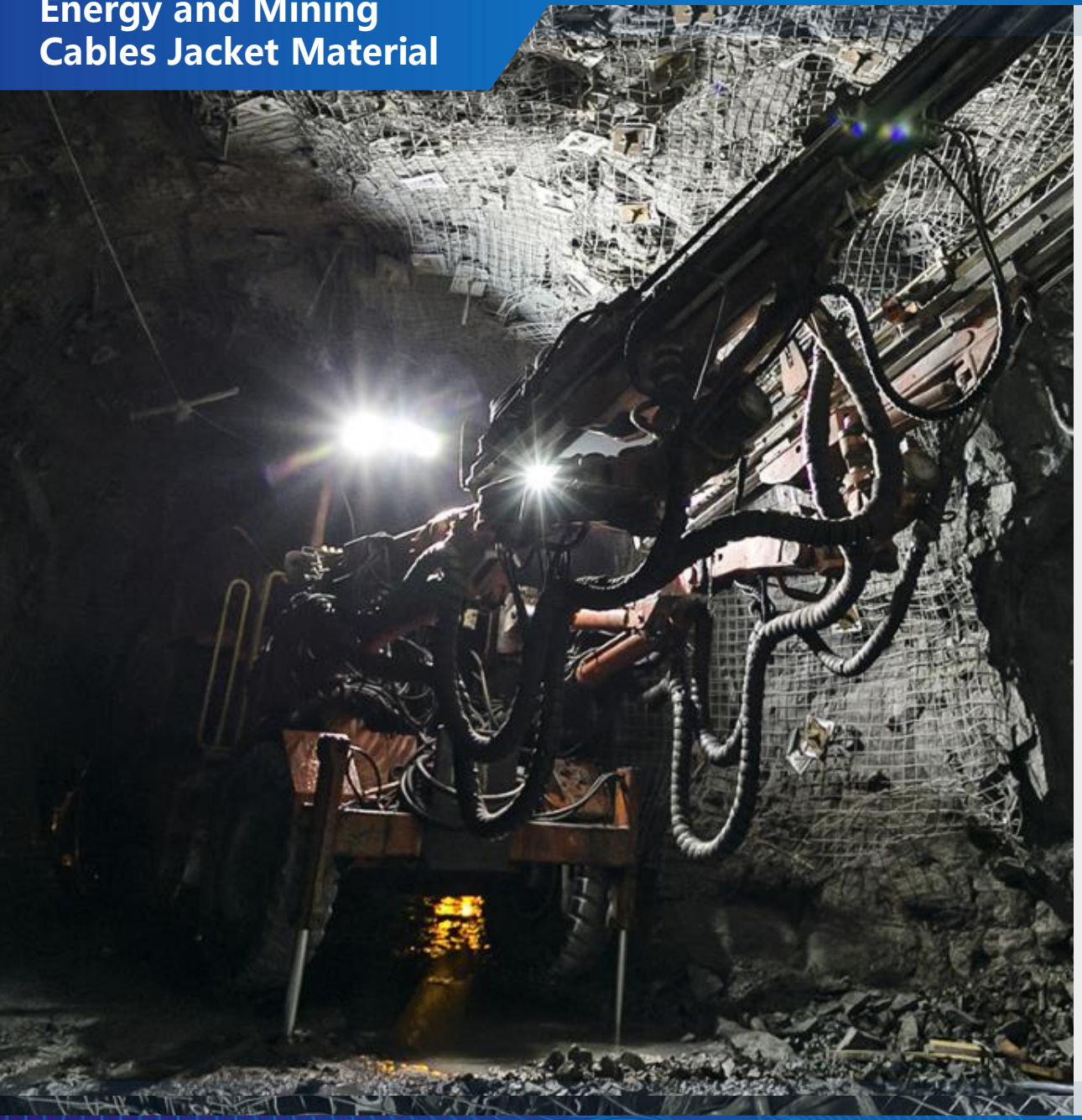

Application Advantages

T P U Jacket Material

1.Permanent anti-static modification (≤ 10^8Ω), tinting supported ;

2.The introduction of special polar polymer into TPU material, greatly improve the bonding strength between TPU and polyester pipe while applied on Surface coating and bonding of Polyester Pipe, which makes it difficult to peel off ;

3.The introduction of rubber functional groups into TPU materials to participate in blending modification, provide better low-temperature hardening performance than untreated TPU. In the application of pipes and cables with higher requirements for low-temperature flexibility, it shows better softness and flexibility than the untreated ones by the same low temperature conditions ;

4.Excellent hydrolysis resistance: pass the most harsh test in the industry: 2000 Hrs hydrolysis resistance test (85℃/85%RH,2000Hrs) .

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Properties Datasheet

					Model	Model	Model	Model	Model
General characteristics	Material properties	Testing standard	Test condition	Units	1085TM	1185D-ENB	1185D-EH	1185D-EM	1175D-EM
	Material category	-	-	-	TPU Polyether	TPU Polyether	TPU Polyether	TPU Polyether	TPU Polyether
	Appearance (light/Semi-matte/Frosted)	-	-	-	frosted	frosted	Glossy	Semi-matte	Semi-matte
	Extrusion/injection	-	-	-	Extrusion	Extrusion	Extrusion	Extrusion	Extrusion
Physical characteristics	Hardness	DIN 53505	155	Shore A	87	87	85	86	75
	Proportion	DIN 53479	-	g/cm³	1.17	1.17	1.13	1.16	1.15
	Melt index	DIN 53735	230℃/5kg	g/10min	2	2	5	2	2
	Brittle temperature	ISO 812	-	℃	-60	-60	-60	-60	-60
Mechanical properties	Elongation	DIN 53504	200mm/min	%	650	600	500	600	600
	Tensile Strength	DIN 53504	200mm/min	Mpa	30	30	28	30	24
	Tearing strength	DIN 53515	500mm/min	KN/m	70	70	70	70	55
Hot air aging	Elongation retention rate	DIN 53504	158℃/168h	%	≥75 (113℃)	≥75 (113℃)	≥75 (113℃)	≥75 (113℃)	≥75 (113℃)
	Tensile strength retention	DIN 53504	158℃/168h	%	≥75 (113℃)	≥75 (113℃)	≥75 (113℃)	≥75 (113℃)	≥75 (113℃)
Electrical performance	Volume resistivity	ASTM D257	-	Ohm-cm	≥1.0E+11	≥1.0E+11	≥1.0E+11	≥1.0E+11	≥1.0E+11
Combustion performance	Vertical burning test	UL 94	3.0/6.0mm	-	V0(6.0mm)	V2(3.0mm)	V2(1.5mm)	V2(3.0mm)	V2(3.0mm)
Feature					Super soft TPU injection products	Non - flame smoke density 152, flame smoke density 69	VW-1 Irradiation-free electron wire	MPPE products, through vw-1	Easy to process flame retardant TPE injection products

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ATP Polymer Technology Co.,Ltd

info@atpchem.com

+86 769 38802055

+86 769 23116805

2# Building,Guanghui Industrial Zone
Dongcheng Hi-Tech Park
Donguan,Guangdong
China