

SUMITUBE™							
Classification		Product name	Materials	Specifications/Approvals*1			
Waterproofing	Flame-retarded	SUMITUBE	A	Polyolefin	SFP		
Waterproofing	Flame-retarded		LA	Polyolefin	SFP		
Waterproofing	Flame-retarded		A4	Polyolefin	SFP		
Waterproofing	Flame-retarded		C	Polyolefin	SFP		
Waterproofing	Flame-retarded		C (UL)	Polyolefin		UL 105°C	
Waterproofing	Flame-retarded		D	Polyolefin	SFP		
Waterproofing	Flame-retarded		A2	Polyolefin		SAE-AMS 135°C	
Waterproofing	Flame-retarded	SUMITUBE	B	Polyolefin	SFP		
Waterproofing	Flame-retarded		LB	Polyolefin	SFP		
Waterproofing	Flame-retarded	SUMITUBE	F (Z)	Polyolefin	UL 105°C VW-1	PSE -F-	
Waterproofing	Flame-retarded		F3 (Z)	Polyolefin	UL 105°C VW-1	PSE -F-	
Waterproofing	Flame-retarded		NHR2	Polyolefin	cULus 125°C VW-1		
Waterproofing	Flame-retarded		NHR4	Polyolefin	UL 125°C VW-1		
Waterproofing	Flame-retarded		R	Polyolefin		SAE-AMS 121°C	
Waterproofing	Flame-retarded		V (300V)	Polyvinylchloride	UL 105°C VW-1	PSE -F-	
Waterproofing	Flame-retarded	SUMITUBE	F2 (Z)	Polyolefin	UL 125°C VW-1	CSA 125°C VW-1	PSE -F-
Waterproofing	Flame-retarded		F4 (Z)	Polyolefin	UL 125°C VW-1	CSA 125°C VW-1	PSE -F-
Waterproofing	Flame-retarded		B2	Polyolefin	UL 125°C VW-1	CSA 125°C VW-1	SAE-AMS 135°C
Waterproofing	Flame-retarded		B2 (3X)	Polyolefin	UL 125°C VW-1	CSA 125°C VW-1	
Waterproofing	Flame-retarded		B8	Polyolefin	UL 125°C VW-1	CSA 125°C VW-1	PSE125°C -F-
Waterproofing	Flame-retarded		V (600V)	Polyvinylchloride	UL 105°C VW-1	CSA 105°C VW-1	PSE -F-
Waterproofing	Flame-retarded		K	PVDF	UL 150°C VW-1	CSA 150°C VW-1	SAE-AMS 175°C
Waterproofing	Flame-retarded	SUMITUBE	K2	PVDF	UL VW-1	SAE-AMS 175°C	PSE -F-
Waterproofing	Flame-retarded	SUMITUBE	AN25	Elastomer		SAE-AMS 120°C	
Waterproofing	Flame-retarded	SUMITUBE	B6	Polyolefin		SAE-AMS 135°C	
Waterproofing	Flame-retarded	SUMITUBE	O2C	Polyolefin	SFP		
Waterproofing	Flame-retarded		W3C	Polyolefin	SFP		
Waterproofing	Flame-retarded	SUMITUBE	O2B2	Polyolefin	UL 125°C	CSA 125°C	SAE-AMS 110°C
Waterproofing	Flame-retarded		W3F2	Polyolefin	UL 125°C	CSA 125°C	
Waterproofing	Flame-retarded		W3B2	Polyolefin	UL 125°C	CSA 125°C	SAE-AMS 110°C
Waterproofing	Flame-retarded		W3B2 (4X)		UL 125°C		
Waterproofing	Flame-retarded		SA2	Polyolefin	SFP		
Waterproofing	Flame-retarded		SA3	Polyolefin	SFP		
Waterproofing	Flame-retarded	SUMITUBE	W	Polyolefin	SFP		

  

IRRAX™TUBE / IRRAX™TAPE							
Classification		Product name	Materials	Specifications/Approvals*1			
Waterproofing	Flame-retarded	IRRAXTUBE	A	Polyolefin	SFP		
Waterproofing	Flame-retarded		B	Polyolefin	SFP		
Waterproofing	Flame-retarded		F2	Polyolefin		PSE125°C -F-	
Waterproofing	Flame-retarded		F2 (UL)	Polyolefin	UL 125°C VW-1	PSE125°C -F-	
Waterproofing	Flame-retarded		V2	Polyvinylchloride	UL 105°C VW-1	CSA 105°C VW-1	PSE -F-
Waterproofing	Flame-retarded		RP3	Polyolefin	UL 105°C VW-1	PSE -F-	
Waterproofing	Flame-retarded		B8	Polyolefin	UL 125°C VW-1	PSE -F-	
Waterproofing	Flame-retarded		ER2	Polyolefin	SFP		
Waterproofing	Flame-retarded		NHR	Polyolefin	SFP	Combustion Standards for Railway Vehicle Materials	
Waterproofing	Flame-retarded		NHR4	Polyolefin	UL 125°C VW-1		
Waterproofing	Flame-retarded		FE2	Fluoroelastomer	SFP		
Waterproofing	Flame-retarded	IRRAXTAPE	VZL	Polyvinylchloride	SFP		

  

IRRAX™SLEEVE						
Classification		Product name	Materials	Specifications/Approvals*1		
Waterproofing	Flame-retarded	IRRAXSLEEVE	SCM2	Polyolefin	SFP	
Waterproofing	Flame-retarded		SBI 300/350	Polyolefin	SFP	
Waterproofing	Flame-retarded		SCD	Polyolefin	SFP	
Waterproofing	Flame-retarded		SNHM	Polyolefin	SFP	Combustion Standards for Railway Vehicle Materials

# Product Lineup

Continuous operating temperature (max.)	Shrink properties		Oil/Chemical resistance (room temperature)*2						Features	Page	SUMITUBE™	
	Shrink ratio	Shrinking complete temperature	Gasoline	Gas oil	Lubricant	Alcohol	Acid	Alkali				
105°C	1.5 : 1	115°C	○	○	○	◎	◎	◎	General purpose	10	SUMITUBE	A
105°C	1.5 : 1	115°C	○	○	○	◎	◎	◎	Large diameter	11		LA
105°C	2 : 1	110°C	○	○	○	◎	○	◎	Weather resistant	12		A4
105°C	1.5 : 1	90°C	△	△	△	◎	○	○	Shrinkage at low temperature	13		C
105°C	1.5 : 1	90°C	△	△	△	◎	○	○	UL	14		C (UL)
135°C	2 : 1	140°C	◎	◎	◎	◎	◎	◎	Semi-rigid	15		D
135°C	2 : 1	110°C	○	○	○	◎	○	◎	Transparent	16	A2	
120°C	1.5 : 1	115°C	○	○	○	◎	◎	◎	Flame-retarded	17	SUMITUBE	B
120°C	1.5 : 1	115°C	○	○	○	◎	◎	◎	Large diameter, flame-retarded (thick wall)	18	LB	
105°C	2 : 1	90°C	△	△	△	◎	○	○	UL, general purpose	19	SUMITUBE	F (Z)
105°C	2 : 1	90°C	△	△	△	◎	○	○	UL, general purpose (thin wall)	20		F3 (Z)
125°C	2 : 1	100°C	△	△	△	◎	○	○	cULus, halogen-free	21		NHR2
125°C	2 : 1	100°C	△	△	△	◎	○	○	UL, halogen-free (thin wall)	22		NHR4
120°C	2 : 1	130°C	○	○	○	◎	○	○	Rubber-like	23		R
105°C	2 : 1	160°C	○	○	○	△	△	△	Flame-retarded, transparent	24		V (300V)
125°C	2 : 1	90°C	△	△	△	◎	○	○	UL / CSA, general purpose	25	SUMITUBE	F2 (Z)
125°C	2 : 1	90°C	△	△	△	◎	○	○	UL / CSA, general purpose (thin wall)	26		F4 (Z)
135°C	2 : 1	90°C	△	△	△	◎	○	○	Flame-retarded, no marking	27		B2
135°C	3 : 1	90°C	△	△	△	◎	○	○	High shrink ratio	28		B2 (3X)
125°C	2 : 1	130°C	○	○	○	◎	◎	◎	Flame-retarded, semi-rigid	29		B8
105°C	2 : 1	160°C	○	○	○	△	△	△	Flame-retarded, transparent	30		V (600V)
175°C	2 : 1	170°C	◎	◎	◎	◎	◎	◎	Highly heat resistant	31	K	
175°C	2 : 1	150°C	◎	◎	◎	◎	◎	◎	Highly heat resistant	32	SUMITUBE	K2
150°C	2 : 1	170°C	◎	◎	◎	◎	◎	◎	Highly heat resistant, highly oil resistant	33	SUMITUBE	AN25
125°C	2 : 1	130°C	○	○	○	◎	◎	◎	Flame-retarded, semi-rigid	34	SUMITUBE	B6
105°C	2 : 1	115°C	○	○	○	○	○	△	Thin adhesive	35	SUMITUBE	O2C
105°C	3 : 1	115°C	○	○	○	○	○	△	Thin adhesive	36		W3C
125°C	2 : 1	110°C	△	△	△	○	○	△	Thin adhesive	37	SUMITUBE	O2B2
125°C	3 : 1	110°C	△	△	△	○	○	△	Thick adhesive	38		W3F2
125°C	3 : 1	110°C	△	△	△	○	○	△	Thick adhesive	39-40		W3B2
	4 : 1								Thick adhesive, high shrink ratio	39-40		W3B2 (4X)
130°C	4 : 1	115°C	○	○	○	○	○	△	High shrink ratio, sealing	41		SA2
130°C	4 : 1	135°C	○	○	○	○	○	△	High shrink ratio, sealing	42		SA3
105°C	2.4 : 1	115°C	△	△	△	○	○	○	Effective filling	43	SUMITUBE	W

Continuous operating temperature (max.)	Shrink properties		Oil/Chemical resistance (room temperature)*2						Features	Page	IRRAX™TUBE IRRAX™TAPE	
	Shrink ratio	Shrinking complete temperature	Gasoline	Gas oil	Lubricant	Alcohol	Acid	Alkali				
105°C	—	—	○	○	○	◎	◎	◎	General purpose	45	IRRAX™TUBE	A
120°C	—	—	○	○	○	◎	◎	◎	Flame-retarded	46		B
125°C	—	—	△	△	△	◎	○	○	Flame-retarded	47		F2
125°C	—	—	△	△	△	◎	○	○	UL	48		F2 (UL)
105°C	—	—	○	○	○	△	△	△	UL / CSA	49		V2
105°C	—	—	△	△	△	◎	○	○	Flexible, flame-retarded	50		RP3
125°C	—	—	○	○	○	◎	◎	◎	Semi-rigid	51	B8	
150°C	—	—	○	○	○	◎	◎	◎	Highly heat resistant, flame-retarded	52	ER2	
—	—	—	△	△	△	◎	○	○	Flame-retarded, halogen-free	53	NHR	
125°C	—	—	△	△	△	◎	○	○	UL, halogen-free	54	NHR4	
200°C	—	—	◎	◎	◎	◎	◎	◎	Highly heat resistant, highly oil resistant, flame-retarded	55	FE2	
105°C	—	—	○	○	○	△	△	△	Flame-retarded	56	IRRAX™TAPE	VZL

Continuous operating temperature (max.)	Shrink properties		Oil/Chemical resistance (room temperature)*2						Features	Page	IRRAX™SLEEVE	
	Shrink ratio	Shrinking complete temperature	Gasoline	Gas oil	Lubricant	Alcohol	Acid	Alkali				
										58	IRRAX™SLEEVE	SCM2
										59		SBI 300/350
										60		SCD
										61		SNHM

\*1: Explanations of Specifications/Approvals are as follows.

- SFP : SFP Standard
- UL : UL224
- CSA : CSA C22.2 No.198.1
- cULus : Standard for U.S.A and Canada based on UL
- SAE-AMS : SAE-AMS-DTL-23053 (Formerly MIL-I-23053)
- PSE : Electrical Appliances and Material Safety Act
- Combustion Standards for Railway Vehicle Materials : Combustion Standards for Railway Vehicle Materials by Japan Railway Rolling Stock & Machinery Association

\*2: Explanations of symbols are as follows.

- ◎ : Very good
- : Good
- △ : Not applicable in some cases

Page	Composite articles
63	SUMISEAL
64	SA3 CAP
Page	Processing equipment
65	SUMISHRINKER / HEATING GUN