

# Specialty wires Catalogue 2023



**WIPE hotwire**  
The trusted manufacturing partner



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## About us

### Established in 2004

We offer well-engineered and high quality products that meet International safety and performance standards.

We are a Leading Designer, Manufacturer and Exporter of cUL approved AWM and Specialty Wire & Cables with insulation such as.

PTFE/ETFE/FEP/PFA/Polyimide and XLPE (90,125, 150 C) / PVC/ HR PVC/ ZHFR/ HFFR/ TPE/ TPU.



### Quality & Environmental Management Policy

WIPE Hotwire is committed to satisfying customers by delivering quality products and services, in accordance with their specified and implied needs, as well as meeting product-related statutory and regulatory requirements.

### Mission

“We, at WIPE hotwire, are dedicated to the pursuit of growth and excellence in our people, products and services through a commitment to innovation, togetherness and team spirit.”

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### Vision

“At WIPE hotwire, our philosophy is that the company and its people should grow each year in vision, performance and accomplishment”.

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### WIPE Hotwire credo

# 4S

**SHANTI**  
(Peace)

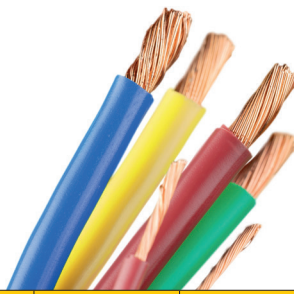
**SADBHAWNA**  
(Compassion)

**SADACHAR**  
(Good Conduct)

**SWABHIMAN**  
(Pride)

# WIPE hotwire  
Credo/Culture

# UL Appliance wiring Material



Sr No	UL / MIL	Type of Insulation	Type of Jacket	Temp. Rating	Voltage (V)	Insulation Thickness	Type of conductor	Conductor Sizes - AWG	Flame rating, UL/CSA	Application
1	11537	ETFE	N/A	150° C	300	12	ABC/ATC	32-16	VW-1	Internal wiring of appliances
2	10086	ETFE	N/A	150/200° C	600	10	ABC/ATC	36-4	VW-1	Internal wiring of appliances
3	21937	ETFE	PVC Jacket	90° C	300	12	ABC/ATC	32-16	VW-1	Internal wiring of appliances
4	3321	XLPE	N/A	150° C	600	30	ABC/ATC	30 -4	FT1	Appliances, transformers, motors, ballasts, lighting, electrical heating, and cooking equipment.
5	3289	XLPE	N/A	150° C	300	30	ABC/ATC	32-10	FT1	Internal wiring where not subjected to movement or mechanical damage
6	3266	XLPE	N/A	125° C	300	15	ABC/ATC	32-10	FT2	Control panels, electric motors, medical equipment, internal wiring of appliances, computers, test equipment, business machines & office and control equipment.
7	3271	XLPE	N/A	125° C	600	30	ABC/ATC	30 -9	FT2	Internal Wiring of appliances, Motor leads, test equipment, computers, office equipment.
8	3385	XLPE	N/A	105° C	300	15	ABC/ATC	32 -10	FT2	Switchboard panels, class B motor lead wire.
9	3173	XLPE	N/A	125° C	600	30	ABC/ATC	26 -9	FT2	Internal Wiring of appliances
10	3290	XLPE	N/A	125° C	600	60	ABC/ATC	26 -9	FT2	Internal wiring of heat pumps and refrigerating equipment
11	1061	PVC	N/A	80° C	300	9	ABC/ATC	32-14	VW-1	Internal wiring in electric or electronic equipment & appliances, semi-rigid pvc
12	1015	PVC	N/A	105° C	600	30	ABC/ATC	30 - 6	VW-1	Internal wiring of appliances, electrical and electronic equipment. Thicker insulation than UL 1007
13	1007	PVC	N/A	80° C	300	15	ABC/ATC	32-16	VW-1	Internal wiring of appliances, panels and meters, flexible in low temp environment
14	1569	PVC	N/A	105° C	300	15	ABC/ATC	30-2	VW-1	Internal wiring of appliances
15	10198	PVC	N/A	105° C	300	30	ABC/ATC	30-6	VW-1	Internal wiring of appliances
16	2464	PVC	PVC Jacket	80° C	300	30	ABC/ATC	30 -9	VW-1	Multicore-Internal wiring of appliances

## High temperatures wires as per MIL specifications

Sr No	UL / MIL	Type of Insulation	Type of Jacket	Temp. Rating	Voltage (V)	Insulation Thickness	Type of conductor	Conductor Sizes - AWG	Flame rating, UL/CSA	Application
1	MIL-W-16878/4 NEMA HP-3	PTFE	N/A	200°C	600	10 Mil	SPC	32-10	Vertical	Hook Up wire, High temperature application, motor and transformers, oven, furnaces, sensors, process instruments, military equipment
2	MIL-W-16878/5 NEMA HP-3	PTFE	N/A	200°C	1000	15 Mil	SPC	32-6	Vertical	Hook Up wire, High temperature application, motor and transformers, oven, furnaces, sensors, process instruments, military equipment
3	MIL-W-16878 /6 NEMA HP-3	PTFE	N/A	200°C	250	6 Mil	SPC	32-20	Vertical	Hook Up wire, High temperature application, motor and transformers, oven, furnaces, sensors, process instruments, military equipment
4	MIL-W-16878 /11 NEMA HP-4	FEP	N/A	200°C	600	10 Mil	SPC	32-10	Vertical	These FEP insulated single-core MIL-W-16878/11 (Type K) wires are used in electronic equipment, motor leads and computer back panels.
5	MIL-W-16878 /12 NEMA HP-4	FEP	N/A	200°C	1000	15 Mil	SPC	32-6	Vertical	These FEP insulated single-core MIL-W-16878/12 (Type KK) wires are used in electronic equipment, motor leads and computer back panels.
6	MIL-W-16878 /13 NEMA HP-4	FEP	N/A	200°C	250	6 Mil	SPC	32-20	Vertical	These FEP insulated single-core MIL-W-16878/13 (Type KT) wires are used in electronic equipment, computer back panels and in places where fire hazards are a problem.
7	MIL-DTL-22759/16	ETFE	N/A	150°C	600	10 Mil	ATC	32-6	Vertical	Rugged with very good dielectric properties, medium weight. For use under conditions requiring very good thermal/cryogenic performance. ETFE is considered to be "self-extinguishing" and/or "non-burning" in both horizontal and vertical flammability tests.
8	MIL-DTL-22759/17	ETFE	N/A	150°C	600	10 Mil	SPC	32-6	Vertical	Rugged with very good dielectric properties, medium weight. For use under conditions requiring very good thermal/cryogenic performance. ETFE is considered to be "self-extinguishing" and/or "non-burning" in both horizontal and vertical flammability tests.
9	MIL-DTL-22759/18	ETFE	N/A	150°C	600	6 Mil	ATC	32-10	Vertical	Rugged with very good dielectric properties, medium weight. For use under conditions requiring very good thermal/cryogenic performance. ETFE is considered to be "self-extinguishing" and/or "non-burning" in both horizontal and vertical flammability tests.

## High temperatures wires as per MIL specifications (countinuation)

Sr No	UL / MIL	Type of Insulation	Type of Jacket	Temp. Rating	Voltage (V)	Insulation Thickness	Type of conductor	Conductor Sizes - AWG	Flame rating, UL/CSA	Application
10	MIL-DTL-22759/19	ETFE	N/A	150° C	600	6 Mil	SPC	32-20	Vertical	Rugged with very good dielectric properties, medium weight. For use under conditions requiring very good thermal/cryogenic performance. ETFE is considered to be "self-extinguishing" and/or "non-burning" in both horizontal and vertical flammability tests.
11	MIL-W-16878 /24	PTFE	N/A	260° C	250	6 Mil	NPC	32-20	Vertical	Being a high-temperature wire works very well for jobs involving aerospace and general-purpose applications.
12	MIL-W-16878 /26	PTFE	N/A	260° C	600	10 Mil	NPC	32-10	Vertical	Being a high-temperature wire works very well for jobs involving aerospace and general-purpose applications.
13	MIL-W-16878 /28	PTFE	N/A	260° C	1000	15 Mil	NPC	32-6	Vertical	Being a high-temperature wire works very well for jobs involving aerospace and general-purpose applications.
14	MIL-DTL-16878 /17	PVC	NYLON	105° C	600	10 Mil	ATC	32-14	Vertical	PVC-insulated MIL-Spec wire with the specifications reinforced with a Polyamide jacket and used in aircraft electrical systems.
15	MIL-DTL-16878 /18	PVC	NYLON	105° C	1000	15 Mil	ATC	26-12	Vertical	PVC-insulated MIL-Spec wire with the specifications reinforced with a Polyamide jacket and used in aircraft electrical systems.
16	MIL-DTL-16878 /19	PVC	NYLON	105° C	3000	30 Mil	ATC	24-10	Vertical	PVC-insulated MIL-Spec wire with the specifications reinforced with a Polyamide jacket and used in aircraft electrical systems.



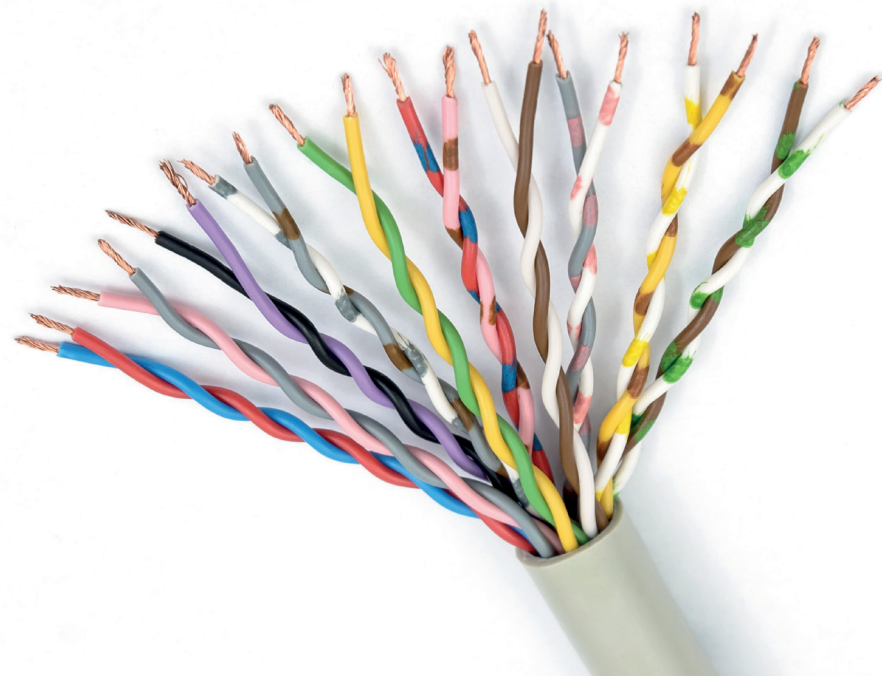
## Control Cable (BS EN 50525)



Srl Nos.	WHITE Product Code	No of cores	Type of insulation	Thickness	shielding	Jacket	Jacket thickness (min)	Range of Conductor Size	Temperature rating	Voltage	Flame rating	End Application
1.0 a	XCX0.25Sq.mm PVC/XLPE PVC JKT.	(2 to 19 Core)	PVC/XLPE/ XLPO	0.50 mm	No Shield	PVC/ FR PVC/ LSZH/ TPU/TPE	0.8-1.3 mm	(0.25Sq.mm to 2.5 Sq.mm)	PVC - 105 0 C & XLPE - 80 0 C, XLPO-150DegC	300/300V & 300/500V	IEC 60332-1	"Control cables are multiple conductor cables that convey low energy electrical signals used in industrial process automation applications, including signal transmission, measurement, control and regulation. These control cables are often referred to by the application, such as machinery supply cable, motor cable and robotics cable. They are also known as multi-core cables, control flex and control flexible cables.
1.0 b	XCX0.35Sq.mm PVC/XLPE PVC JKT.	(2 to 19 Core)	PVC/XLPE/ XLPO	0.50 mm			0.8-1.3 mm					
1.0 c	XCX0.5Sq.mm PVC/XLPE PVC JKT.	(2 to 19 Core)	PVC/XLPE/ XLPO	0.5-0.6 mm			0.8-1.3 mm					
1.0 d	XCX0.75Sq.mm PVC/XLPE PVC JKT.	(2 to 19 Core)	PVC/XLPE/ XLPO	0.5-0.6 mm			0.8-1.3 mm					
1.0 e	XCX1.0Sq.mm PVC/XLPE PVC JKT.	(2 to 19 Core)	PVC/XLPE/ XLPO	0.60 mm			0.8-1.3 mm					
1.0 f	XCX1.5Sq.mm PVC/XLPE PVC JKT.	(2 to 19 Core)	PVC/XLPE/ XLPO	0.70 mm			0.8-1.3 mm					
1.0 g	XCX2.5Sq.mm PVC/XLPE PVC JKT.	(2 to 19 Core)	PVC/XLPE/ XLPO	0.80 mm			0.8-1.3 mm					
2.0 a	XCX0.25Sq.mm PVC/XLPE S/J	(2 to 19 Core)	PVC/XLPE/ XLPO	0.50 mm	(ABC/ ATC)	PVC/ FR PVC/ LSZH/ TPU/TPE	0.8-1.3 mm	(0.25Sq.mm to 2.5 Sq.mm)	PVC - 105 Deg C & XLPE - 80 C, XLPO-150DegC	300/300V & 300/500V	IEC 60332-1	Depending on their construction properties, these flexible cables can be suitable for use under light, medium or high mechanical stresses. They also offer various degrees of protection against electrical interference and resistance to caustic substances and oils. "
2.0 b	XCX0.25Sq.mm PVC/XLPE S/J	(2 to 19 Core)	PVC/XLPE/ XLPO	0.50 mm			0.8-1.3 mm					
2.0 c	XCX0.5Sq.mm PVC/XLPE S/J	(2 to 19 Core)	PVC/XLPE/ XLPO	0.5-0.6 mm			0.8-1.3 mm					
2.0 d	XCX0.75Sq.mm PVC/XLPE S/J	(2 to 19 Core)	PVC/XLPE/ XLPO	0.5-0.6 mm			0.8-1.3 mm					
2.0 e	XCX1.0Sq.mm PVC/XLPE S/J	(2 to 19 Core)	PVC/XLPE/ XLPO	0.60 mm			0.8-1.3 mm					
2.0 f	XCX1.5Sq.mm PVC/XLPE S/J	(2 to 19 Core)	PVC/XLPE/ XLPO	0.70 mm			0.8-1.3 mm					
2.0 g	XCX2.5Sq.mm PVC/XLPE S/J	(2 to 19 Core)	PVC/XLPE/ XLPO	0.80 mm			0.8-1.3 mm					

## Instrumentation Cable (BS EN 50228-7)

Sr. No.	No. of Cores	Type of insulation	Insulation Thickness	shielding	Jacket	Jacket thickness (min)	Range of Conductor Size	Temperature Rating	Voltage	Flame rating	End Application
1,0	1 TP to 7 TP	PVC/XLPE/XLPO	0.50 mm	Al. Foil / Braid	PVC/ FR PVC// LSZH/ TPU/TPE	1.3 mm	(AWG24 to AWG18)	PVC - 105 0 C & XLPE - 80 0 C, XLPO-150 DegC	300/500V	FT2/ FT1/IEC 60332-1	Instrumentation cables are multiple conductor cables that convey low energy electrical signals used in communication and instrumentation or monitoring and controlling electrical power systems and their associated processes. The functions of measurement and control are vital in manufacturing and processing applications. These functions are greatly dependent on their electronic circuitry. Typical applications include communication and instrumentation, industrial equipment control, automated assembly equipment, mass transit systems etc.
2,0	1 TP to 4 TP	PVC/XLPE/XLPO	0.50 mm			1.3 mm					
3,0	1 TP Shd. to 7 TP Shd.	PVC/XLPE/XLPO	0.50 mm			1.3 mm					
4,0	1 TP Shd. to 4 TP Shd.	PVC/XLPE/XLPO	0.50 mm			1.3 mm					





# THNN PVC Insulated & Nylon coated Wires

90°C, 600 Volts, PVC insulation  
rated VW-1 flame resistant

## CONSTRUCTION

1. Conductors: ABC
2. Insulation: PVC + Nylon
3. Colors: Any Electronic color

## APPLICATIONS AND FEATURES

These cables are used for internal wiring of switchboards, electronic and electrical equipment, e.g. households, radio of televisions, monitor and control desks.  
Conditionally resistant to oils, solvents, acids and dyes, heat and damp resistant.

## SPECIFICATIONS

- UL83, UL758, UL1063 & UL1581
- VW-1 - sizes 14 through 6 AWG
- RoHS/REACH compliant



Conductor Size	No. of Strands	Insulation thickness		Jacket Thickness		Nominal OD		Max. DC resistance	Ampacity (90°C)
		Inch	mm	Inch	mm	Inch	mm	$\Omega/1000ft$ at 20°C	Amp.
14	19	0.015	0.38	0.004	0.10	0.112	2.85	2.62	15
12	19	0.015	0.38	0.004	0.10	0.130	3.30	1.65	20
10	19	0.020	0.51	0.004	0.10	0.163	4.15	1.04	30
8	19	0.030	0.76	0.005	0.13	0.217	5.50	0.654	55
6	19	0.030	0.76	0.005	0.13	0.262	6.65	0.412	75

## RF CABLES (As per MIL- SPEC-C17, JSS 51100)

Sr No	Nomenclature	O.D	Jacket Type	Shields	Dielectric		Conductor			DC Res.	Capacitance	Impedance	Continous working Voltage (RMS)	Max. operating	Max. attenuation `@ 25°C. db/100m	Weight
	& Equivalents	mm		Type	Material	mm	Material	Size mm	dia.mm	$\Omega/100m$	pf/m	Zo (Ohms)		frequency (GHZ.)	400 MHZ	
1	RG-196 A/U	2.03	PTFE	SPC. Braid	PTFE	0.86	SCW	7x0.10	0.30	76.0	100.0	50	750	3.0	95	0.85
2	RG-195 A/U	3.93	PTFE	SPC. Braid	PTFE	2.59	SCW	7x0.11	0.30	76.0	51.0	95	750	3.0	56	1.85
3	RG-188 A/U	2.79	PTFE	SPC. Braid	PTFE	1.86	SCW	7x0.17	0.51	25.0	105.0	50	900	3.0	66	1.60
4	RG-187 A/U	2.79	PTFE	SPC. Braid	PTFE	1.60	SCW	7x0.10	0.30	80.2	67.0	75	900	3.0	69	1.85
5	RG-141 A/U	4.83	VFG	SPC. Braid	PTFE	2.95	SCW	1x0.94	0.94	5.8	96.0	50	1400	3.0	89	5.80
6	RG-142 A/U	5.23	VFG	SPC (Double Braid)	PTFE	2.95	SCW	1x0.94	0.94	5.8	96.0	50	1400	3.0	105	5.80
7	RG-178 B/U	1.82	FEP	SPC. Braid	PTFE	0.86	SCW	7x0.10	0.30	80.2	105.0	50	1000	3.0	108	0.85
8	RG-179 B/U	2.54	FEP	SPC. Braid	PTFE	1.60	SCW	7x0.10	0.30	80.2	64.0	75	1200	3.0	69	1.85
9	RG-180 B/U	3.68	FEP	SPC. Braid	PTFE	2.59	SCW	7x0.10	0.30	80.2	51.0	95	1500	3.0	56	2.95

VFG: Varnished Fiber Glass  
SCW: Silver Plated Copper weld



## Thermocouple Cables

A Thermocouple is a sensor used to measure temperature. Thermocouples consist of two wire leads made from different metals. The wires leads are welded together at one end, creating a junction. This junction is where the temperature is measured. When the junction experiences a change in temperature, a voltage is created. The voltage can then be interpreted using thermocouple reference tables to calculate the temperature.

Construction	Single or multi pair
Voltage Grade	Up to 1.1 KV
Conductor	TC, EX, C (as per below table)
Type of conductor	K, J, T
Conductor Size	AWG 16 to AWG 32
Conductor Stranding	Solid or multi strand
Core Insulation	PVC, XLPE, PTFE, FEP, ETFE, PFA, Fiber glass
Screening	Aluminium foil type / mesh braided type
Inner/Outer Sheath	PVC, XLPE, PTFE, FEP, ETFE, PFA, Fiber glass
Armouring	SS Braiding
Color Code	As per below table
Standards	IEC 60584-3, IS8784 ,ANSI MC 96.1

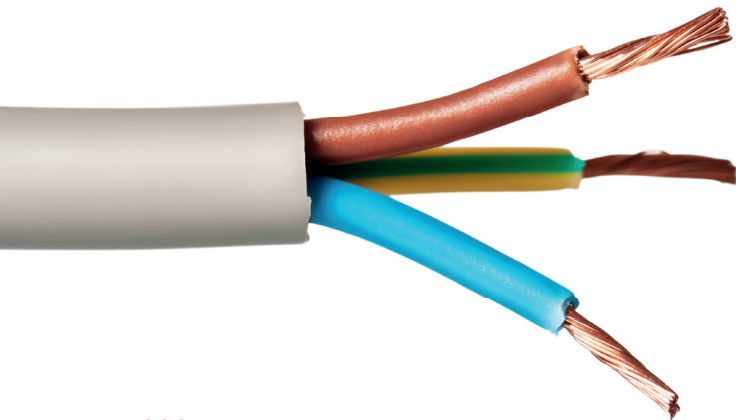


## Colour code & accuracy of thermocouple, extension & compensating cables

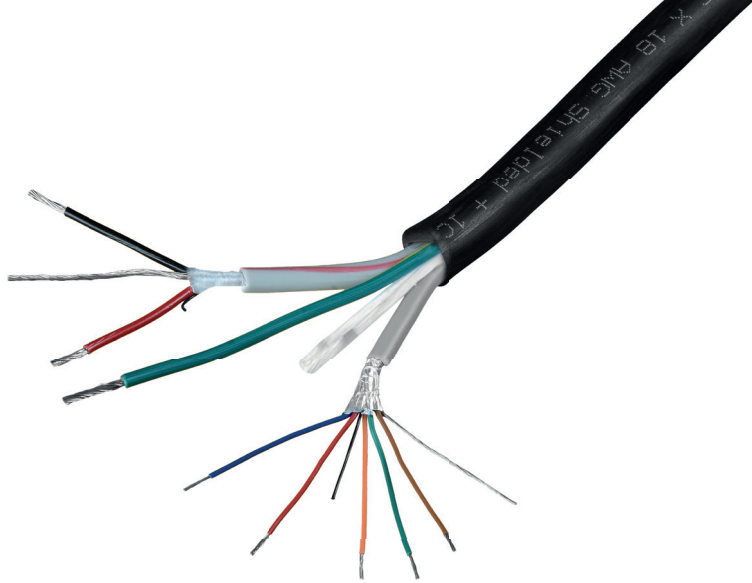
T/C Type	Conductor		Conductor Combination		Color Code			Tolerance Class as per IEC		Cable TEMP. RANGE (°C)
	Extension cable	Compensating cable	+LEG	-LEG	IEC 60584-3	IS:8787	ANSI/MC 96.1	CLASS 1	CLASS 2	
K			Chromel	Alumel				±1.5°C or 0.4% of T	±2.5°C or 0.75% of T	0°C to +1100°C
	KX		Chromel	Alumel				±1.5°C	±2.5°C	-25°C to +1100°C
		KCA	Iron	Constantan			-	-	±2.5°C	0°C to +150°C
		KCB	Copper	Constantan			-	-	±2.5°C	0°C to +100°C
T			Copper	Constantan				±0.5°C or 0.4% of T	±1.0°C or 0.75% of T	-185°C to +300°C
	TX		Copper	Constantan				±0.5°C	±1.0°C	-25°C to +100°C
J			Iron	Constantan				±1.5°C or 0.4% of T	±2.5°C or 0.75% of T	+20°C to +700°C
	JX		Iron	Constantan				±1.5°C	±2.5°C	-25°C to +200°C

## Automotive Wires

Sr No	UL / MIL	Type of Insulation	Type of Jacket	Temp. Rating	Voltage (V)	Insulation Thickness	Type of conductor	Conductor Sizes - AWG	Flame rating	Application
1	AV	PVC	N/A	80° C	60	0.60 - 1.0 mm	ABC	0.5-10SQ mm	IEC 60332-1	These are standard wall auto cables for use in automotive wiring and harness.
2	AVS	PVC	N/A	80° C	60	0.50 - 0.8 mm	ABC	0.3-8SQ mm	IEC 60332-1	These are thin wall auto cables for use in automotive application and harness.
3	AVSS	PVC	N/A	80° C	60	0.30 - 0.4 mm	ABC	0.2-2SQ mm	IEC 60332-1	These are ultra thin wall auto cables for use in automotive harness .
4	FLRY-A	PVC	N/A	105° C	60	0.20 - 0.28 mm	ABC	0.2-2.5SQ mm	IEC 60332-1	This PVC insulated single-core cable with symmetrical conductor structure (type A) and thin wall is used for automobiles, motorcycles electrical equipment in high temperature condition.
5	FLRY-B	PVC	N/A	105° C	60	0.20 - 0.52 mm	ABC	0.3-2.5SQ mm	IEC 60332-1	These are thin walled cables ideal for use in automotives where its reduced insulation thickness and higher temperature withstanding properties serves its application in complex wiring harnesses.
6	SXL	XLPE	N/A	125° C	60	0.74 - 1.09 mm	ABC/ATC	22-6 AWG	IEC 60332-1	This XLPE insulated single-core cable is used in automotive applications where higher heat resistance is required.
7	GXL	XLPE	N/A	125° C	60	0.58 - 1.09 mm	ABC/ATC	22-6 AWG	IEC 60332-1	This XLPE insulated single-core cable is used in automotive applications where higher heat resistance and small diameter is required.
8	TXL	XLPE	N/A	125° C	60	0.40 - 0.70 mm	ABC/ATC	22-6 AWG	IEC 60332-1	This XLPE insulated single-core cable is used in automotive applications where higher heat resistance, small diameter and minimal weight is required.







## Corporate Social Responsibility

### Responsibility Towards Education Government School, Neemrana

- Infrastructure support
- School uniform, note book & stationary items
- Class room furniture
- IT support
- Setting of innovation labs

### Responsibility Towards Health

- Cataract eye operation camps
- Regular health check-ups
- Medical insurance for all employees

### Responsibility Towards Environment

- Tree plantation
- Rain water harvesting
- Promote non-usage of one-time-use plastics

## WIPE Hotwire Strengths



Special wire & cable design and conductor making facility for special applications



Three manufacturing units to ensure uninterrupted supplies



Fully integrated harness making facility (ability to offer alternate materials for diverse applications)



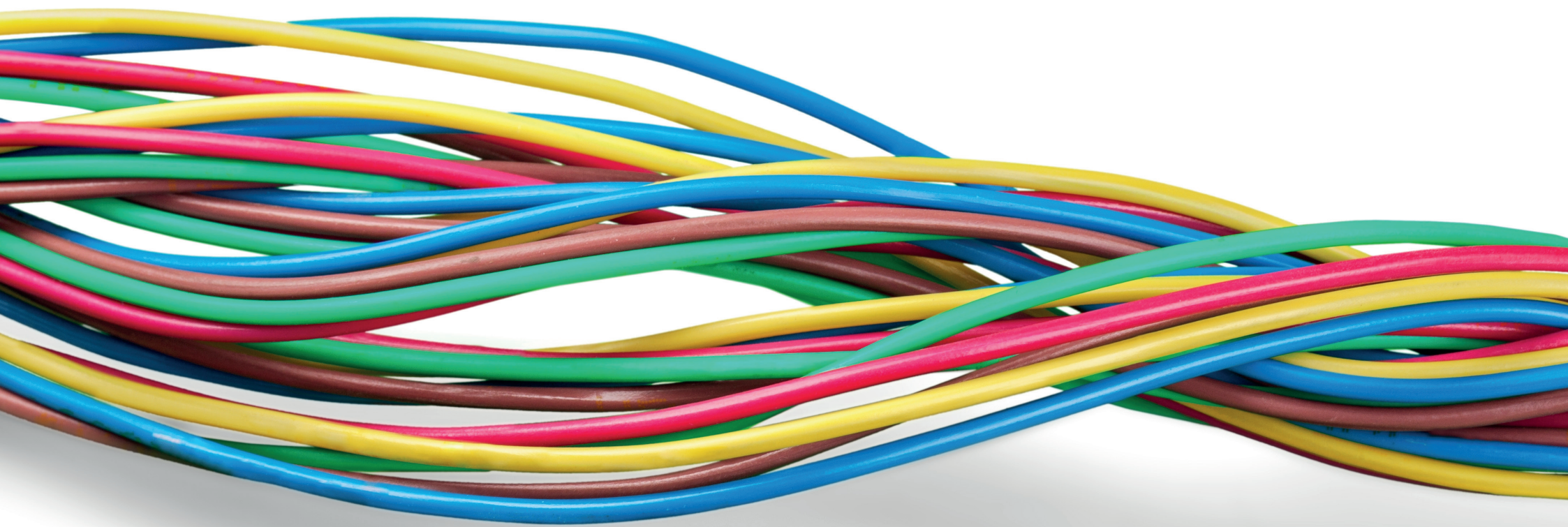
Consistency in achieving & exceeding the targeted 85% in customer satisfaction Index for past 5 years

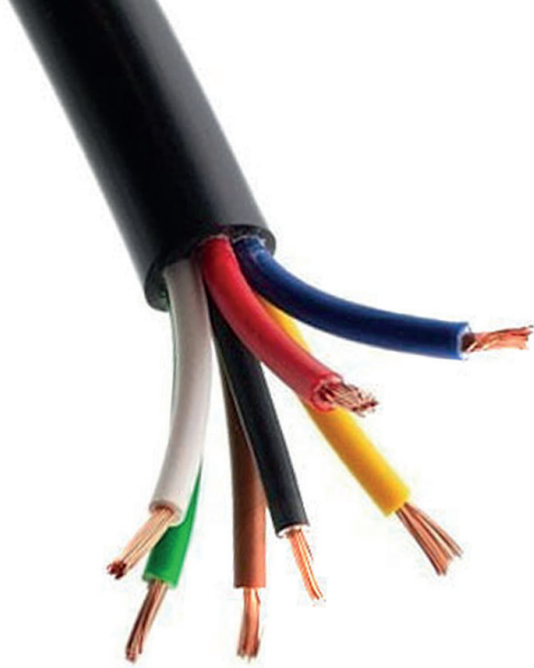


Flexible manufacturing – Custom Design/Fabrication Machines



History of consistent growth in exports for past 15 years





**Factory Address**

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