CONGO CABLES AND TRANFORMERS SAS

TECHNICAL DATASHEET (TDS)				
Cable Description :2C X 10 Sq.mm, Flexible Copper Conductor, PVC Insulated unsheathed Wire 0.6/1KV				
Make			**CONGO CABLES & TRANSFORMERS**	
Description			**CU/PVC-FR**	
Reference Standard			**As per SANS:1574-3**	
Voltage Grade			**600/1000 VOLT**	
Features				
Operating Temperature			**70°C**	
Max. Temp. During Short Circuit			**160°C**	
Application				
For outdoor fixed installation and its normally used for power distribution in urban network and industrial plants				
Suitable for laying in ducts or on trays in free air				
Construction				
S.No.	**Description of Parameter**		**Unit**	**Particulars**
1	**Conductor**			
	1.1	Material/Grade		Copper Conductor Class - 5 (As per SANS 1411-1)
	1.2	Application		Flexible
	1.3	Size of Single Wire in Bunched(Max.)	mm	0.41
	1.4	Nom. Cross Section Area of Cond.	Sq.mm	10
	1.5	D.C Conductor Resistance at 20°C (Max.)	Ω / Km	1.91
2	**Insulation**			
	2.1	Material		Extruded PVC -D 3
	2.2	Colour of Insulated Core		AS PER CUSTOMER REQUIRMENT
	2.3	Insulation Thickness (Nom)	mm	1.00
	2.4	Insulation Thickness (Min)	mm	0.80
	2.5	Over all Diameter of cable(Approx)	mm	5.2
	2.6	Colour of Insulated Core	mm	RED BLACK
3	**Laying Up**			
	3.1	Application		All Cores laidup together suitable lay with right hand lay
4	**Outer Sheath**			
	4.1	Material		Extruded PVC S-3
	4.2	Colour of Outer Sheath		BLACK
	4.3	Over all Diameter of cable(Approx)	mm	14.0
	4.4	Outer Sheath Thickness (Nominal)	mm	1.80
	4.5	Outer Sheath Thickness (Min)	mm	1.43
	4.6	Height Of Marking (Max.)	mm	13 mm (Max.) and Min (3.0 mm)
	4.8	Gap Of Marking End of The one Legend and Beginning of the next Legend(Max.)	mm	550 mm
5	**Physical Parameter for Finished Cables**			
		Before Ageing (INSULATION & SHEATHING)		
	5.1	Tensile Stregth (Min)	Mpa	10
	5.2	Elongation (Min)	%	150
	5.3	**After Ageing (INSULATION & SHEATHING)**		80°C , 168 HRS
	5.4	Tensile Stregth (Min)		
	5.5	Variation from unaged value, max.	%	±20
	5.6	Elongation (Min)		
	5.7	Variation from unaged value, max.	%	±20
	5.8	Limiting Oxygen Index (Min.)	%	27
	5.9	**Heat Shock (+150°C)**	Visual	No sign of internal or external cracking
	5.11	**Bending in Low Temperature (-15 °C)**	Visual	No sign of internal or external cracking
		Resistance to burning		
	5.12	Top support to char onset, min.	mm	50
	5.13	Top support to char lower end, max	mm	540
		Hot Deformation Test		
	5.14	Temperature (tolerance ± 2 °C)	°C	80
	5.15	Depth of indentation, max	%	50
6	**Electrical Data fpr Finshed Cable**			
	6.1	D.C Conductor Resistance at 20°C (Max.)	Ω/Km	1.91
	6.2	Insulation resistancea at 70 °C (Min)	mΩ- km	0.00610
	6.3	Insulation Volume Resistivity At 23 °C	Ω-M	2×10^{11}
7	**Packing**			
	7.1	Marking over the Cable		**CONGO CABLES & TRANSFORMERS , 2C X 10 SQ.MM, 600/1000 VOLT SANS 1574-3 , Year of Manufacturing**
	7.2	Sequentail Length Marking	Meters	Shall be provided on surface at every one Meter
	7.3	Cable Length	Meters	Multiple of 100/250/500/1000 or as per Requirement
	7.4	Type of Drum		Wooden Drum Fully Packed with Lagging and Coils in wrapping