COMPLETE PRODUCTION WORK ORDER PACKAGE

ROOT / MAIN: WO-2026-000014 SELECTED BOM: BOM-000002 / Rev.0

Contains full frozen details for MAIN + every nested Child BOM Work Order.

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WORK ORDER / BOM RELATIONSHIP INDEX

Level	Work Order	Parent	Parent Operation	Product / BOM	Qty	Status
MAIN	**WO-2026-000014**		ROOT	C1 100A 02X10BB5DKDC4Y | BOM-000002	1000 m	PLANNED

PRODUCTION / MANUFACTURING SEQUENCE - PRODUCE FROM DEEPEST CHILD TO MAIN

Prod Seq	Level	Work Order	Parent	Parent Operation	Product / BOM	Qty
1	MAIN	**WO-2026-000014**		FINAL / MAIN	C1 100A 02X10BB5DKDC4Y | BOM-000002	1000 m

1.	**Production Stage 1 = ALL Work Orders on the deepest hierarchy level. They may be produced in parallel.**
2.	**After every Work Order in a stage is completed, move one level upward to the next Production Stage.**
3.	**The MAIN Work Order is the final stage and starts after all required child/semi-finished stages are completed.**

VISUAL WORK ORDER / BOM HIERARCHY

Real operation flow: parallel BOM branches merge at the consuming process, then continue as ONE line.



OPERATION TYPE LEGEND

- INSULATION EXTRUSION
- CABLING / LAY-UP (BUKUM)
- OUTER SHEATH EXTRUSION

Parallel inputs converge into ONE consuming operation. After the merge, the route continues as ONE process line. MAIN = actual final operation.

MAIN WORK ORDER **ROOT OF SELECTED BOM TREE**

THIS SECTION CONTAINS THE COMPLETE FROZEN BOM / ROUTING / PARAMETERS / MATERIALS FOR THIS WORK ORDER.

PRODUCTION WORK ORDER
WO-2026-000014

PRODUCT

C1 100A 02X10BB5DKDC4Y | H07RN-F 2.0X25.0 mm2

Qty: 1000 m Customer: |

WO Date/Time: 2026-09-28 00:19:01

MAIN WO BARCODE

WO-2026-000014-MAIN-000015

WORK ORDER DETAILS

Selected BOM	BOM-000002 / Rev.0	**Status / Priority**	PLANNED / HIGH
WO Role / Level	MAIN / L0	**Parent WO**	
Parent Operation	--	**Frozen Snapshot**	v1
Standard / Voltage	450/750	**Core / Section**	2.0 / 25 mm2
Factory		**Department**	F03-D10 | Engineering
Work Centre		**Responsible**	F03-OP01 | Ahmed Hassan F03
Order / Due	2026-09-28	**Planned Start**	
WO Created Date / Time	2026-09-28 00:19:01	**PDF Generated Date / Time**	2026-11-19 23:50:19

THIS WORK ORDER - PRODUCT TREE / BOM SEQUENCE

1.	**BOM-000002 / Rev.0**

THIS WORK ORDER - ROUTING / OPERATION SEQUENCE

WO Seq	Source BOM	Operation	Machine	Work Centre
10	BOM-000002 / Rev.0	**OP060 | Insulation Extrusion**	F02-M04 | XLPE Insulation Line	|
20	BOM-000002 / Rev.0	**OP090 | Cabling / Lay-up**	F01-M03 | Rigid Strander	|
30	BOM-000002 / Rev.0	**OP140 | Outer Sheath Extrusion**	F02-M08 | Outer Sheathing Line	|

OP 10 - OP060 | Insulation Extrusion

BOM: BOM-000002 / Rev.0 Source Seq: 10

Machine: F02-M04 | XLPE Insulation Line Work Centre: |

Speed: 120 m/min

Setup: 45 min Scrap: 1%

WO-2026-000014-010-OP060-19

PLANNED PRODUCTION

Start	Finish	Input Qty	Output Qty	Speed	Setup	Duration	Semi-Finished Output
		1000 m	**1000 m**	**120 m/min**	45 min	30 min	Insulated Conductor

TECHNICAL / ENGINEERING PARAMETERS

Parameter	Required / Target	Min	Max	Unit	Remarks
Process Type	**Pressure**				
Material Standard	**XLPE IEC 60502-1**				
Color	**reD**				
Color Masterbatch Ratio (%)	**3**			%	
Color Masterbatch Type	**XLPE**				
Catalyst Ratio (%)	**3**	2	4	%	
Anti-Rodent Additive Ratio (%)	**3**	2	4	%	
Anti-Termite Additive Ratio (%)	**3**	2	4	%	
Flame-Retardant Additive Ratio (%)				%	
Foaming Additive Ratio (%)				%	
Nominal Wall Thickness (mm)	**0.7**			mm	
Minimum Point Wall Thickness (mm)	**0.54**			mm	
Nominal Diameter (mm)	**15**			mm	
Minimum Diameter (mm)	**12**			mm	
Maximum Diameter (mm)	**15**			mm	
Manufacturing Wall Thickness (mm)	**0.7**			mm	
Manufacturing Minimum Wall Thickness (mm)	**0.6**			mm	

Manufacturing Maximum Wall Thickness (mm)	**0.75**			mm	
Material Weight (kg/km)	**100**			kg/km	
Manufacturing Nominal Diameter (mm)	**13**			mm	
Manufacturing Minimum Diameter (mm)	**12**			mm	
Manufacturing Maximum Diameter (mm)	**15**			mm	
Insulation Input Diameter					
Maximum Point Wall Thickness (mm)				mm	
Insulation Resistance (M?.km)				Mohm/km	
Standard Minimum Diameter					
Standard Maximum Diameter					
Insulation Marking					
Note					
Tensile Strength / Elongation Values					

PRODUCTION PROCESS PARAMETERS

Parameter	Required / Target	Min	Max	Unit	Remarks
Extruder Zone Temperatures				?C	
Head Temperature				?C	
Screw Speed				rpm	
Line Speed				m/min	

QUALITY / TEST PARAMETERS

Parameter	Required / Target	Min	Max	Unit	Remarks
Minimum Thickness				mm	
Spark Test Voltage				kV	
Insulated Core OD				mm	

RAW MATERIALS / COMPONENTS - OP 10 ONLY

Material Code	Material Name	BOM Qty	WO Required	Unit	Role	Scrap %	Notes
CMP-LSZH-001	LSZH Insulation Compound	45345	**45345000**	kg		0%	
CMP-LSZH-001	LSZH Insulation Compound	34543	**34543000**	kg		0%	
CMP-LSZH-001	LSZH Insulation Compound	5435	**5435000**	kg		0%	
CMP-LSZH-001	LSZH Insulation Compound	5345	**5345000**	kg		0%	
CMP-LSZH-001	LSZH Insulation Compound	453445	**453445000**	kg		0%	

OP 10 - OPERATOR / QC SIGN-OFF

Operator / Sign	Actual Start / Stop	Actual Output / Scrap	QC / Supervisor / Sign

OP 20 - OP090 | Cabling / Lay-up

BOM: BOM-000002 / Rev.0 Source Seq: 20

Machine: F01-M03 | Rigid Strander Work Centre: |

Speed: 3000 m/min

Setup: 45 min Scrap: 1%



WO-2026-000014-020-OP090-20

PLANNED PRODUCTION

Start	Finish	Input Qty	Output Qty	Speed	Setup	Duration	Semi-Finished Output
		1000 m	**m**	**3000 m/min**	45 min	45 min	bukulu dmar asd

TECHNICAL / ENGINEERING PARAMETERS

Parameter	Required / Target	Min	Max	Unit	Remarks
Lay Type	**damar bukum**				
Lay Direction	**sag**				
Minimum Lay Length	**232**	232	23		
Nominal Lay Length	**232**	23	23		
Maximum Lay Length	**23**		23		

Lay Ratio	**12**				
Minimum Diameter	**23**				
Nominal Diameter	**23**		23		
Maximum Diameter					
Filler Cord Count					
Filler Cord Diameter					
Dummy Core Count	**23**		23		
Dummy Core Diameter			23		
Filler Cord Material	**23**				
Filler Cord Weight					
Yarn Material					
Yarn Weight	**23**				
Color and Number Sequence					
Process Type					
Material Standard	**23**				
Color					
Color Masterbatch Ratio (%)				%	
Color Masterbatch Type	**23**				
Input Diameter					
Manufacturing Wall Thickness (mm)				mm	
Manufacturing Minimum Wall Thickness (mm)				mm	
Manufacturing Maximum Wall Thickness (mm)				mm	
Manufacturing Nominal Diameter (mm)				mm	
Manufacturing Minimum Diameter (mm)		23		mm	
Manufacturing Maximum Diameter (mm)	**2323**			mm	
Standard Minimum Diameter	**2323**				
Standard Maximum Diameter	**23**				
Material Weight (kg/km)	**23**	23		kg/km	
Note					

PRODUCTION PROCESS PARAMETERS

Parameter	Required / Target	Min	Max	Unit	Remarks
Line Speed				m/min	

QUALITY / TEST PARAMETERS

Parameter	Required / Target	Min	Max	Unit	Remarks
Assembly OD				mm	

RAW MATERIALS / COMPONENTS - OP 20 ONLY

Material Code	Material Name	BOM Qty	WO Required	Unit	Role	Scrap %	Notes
-	No material line stored for this operation.						

OP 20 - OPERATOR / QC SIGN-OFF

Operator / Sign	Actual Start / Stop	Actual Output / Scrap	QC / Supervisor / Sign

OP 30 - OP140 | Outer Sheath Extrusion

BOM: BOM-000002 / Rev.0 Source Seq: 30

Machine: F02-M08 | Outer Sheathing Line Work Centre: |

Speed: 100 m/min

Setup: 44 min Scrap: 1%

WO-2026-000014-030-OP140-21

PLANNED PRODUCTION

Start	Finish	Input Qty	Output Qty	Speed	Setup	Duration	Semi-Finished Output
		1000 m	**1000 m**	**100 m/min**	44 min	23 min	final kablo

TECHNICAL / ENGINEERING PARAMETERS

Parameter	Required / Target	Min	Max	Unit	Remarks
Process Type					
Material Standard					
Color					
Color Masterbatch Ratio (%)				%	
Color Masterbatch Type					
Catalyst Ratio (%)				%	
Anti-Rodent Additive Ratio (%)				%	
Anti-Termite Additive Ratio (%)				%	
Flame-Retardant Additive Ratio (%)				%	
Foaming Additive Ratio (%)				%	
Nominal Wall Thickness (mm)				mm	
Minimum Point Wall Thickness (mm)				mm	
Nominal Diameter (mm)				mm	
Minimum Diameter (mm)				mm	
Maximum Diameter (mm)				mm	
Manufacturing Wall Thickness (mm)				mm	
Manufacturing Minimum Wall Thickness (mm)				mm	
Manufacturing Maximum Wall Thickness (mm)				mm	
Material Weight (kg/km)				kg/km	
Manufacturing Nominal Diameter (mm)				mm	
Manufacturing Minimum Diameter (mm)				mm	
Manufacturing Maximum Diameter (mm)				mm	
Input Diameter					
Standard Minimum Diameter					
Standard Maximum Diameter					
Jacket Note					
Standard Minimum Wall Thickness (mm)				mm	
Standard Maximum Wall Thickness (mm)				mm	
Marking					

PRODUCTION PROCESS PARAMETERS

Parameter	Required / Target	Min	Max	Unit	Remarks
Extruder Zone Temperatures				?C	
Line Speed				m/min	

QUALITY / TEST PARAMETERS

Parameter	Required / Target	Min	Max	Unit	Remarks
Minimum Thickness				mm	
Final Cable OD				mm	
Spark Test Voltage				kV	

RAW MATERIALS / COMPONENTS - OP 30 ONLY							
Material Code	**Material Name**	**BOM Qty**	**WO Required**	**Unit**	**Role**	**Scrap %**	**Notes**
CMP-RUB-002	CPE Rubber Sheathing Compound	250	**250000**	kg		0%	

OP 30 - OPERATOR / QC SIGN-OFF			
Operator / Sign	**Actual Start / Stop**	**Actual Output / Scrap**	**QC / Supervisor / Sign**