Government of India
Ministry of Communications
Department of Telecommunications
Telecommunication Engineering Centre
K.L. Bhawan, Janpath, New Delhi-110 001.
(Transmission Division)

File No. 3-2/2025-Tx/TEC

Dated: 30.05.2025

Subject: Revision of Test Schedule and Test Procedure of "Splice Closure for Optical Fibre Cables (Suitable for Non-Ribbon Fibre Splicing) (No.TEC/TSTP/GR/TX/OJC-002/03/APR-2010)" - Inviting comments

In exercise of the powers conferred by rule 5(2) of the Telecommunications (Framework to Notify Standards, Conformity Assessment and Certification) Rules 2025, a draft Test Guide (Draft Test Guide No. TEC 87081:2025) for *"Splice Closure for Optical Fibre Cables"* with respect to revision of *TEC/TSTP/GR/TX/OJC-002/03/APR-2010,* is enclosed herewith **(Annexure-I)** for stakeholder consultation. It is requested to go through the aforesaid enclosed draft Test Guide and offer your inputs/comments.

2. The comments may be furnished in the template sheet enclosed herewith as **Annexure-II** through email to *dirt2-tec-dot@gov.in , adet-tx-tec-dot@gov.in , ratx.tec-dot@nic.in* at the earliest and latest within sixty days please.

Enclosures:

(i) Draft Test Guide (Draft Test Guide No. TEC 87081:2025) **(Annexure-I)**
(ii) Template/Format sheet for providing comments **(Annexure-II)**

Mudita Chandra

(Mudita Chandra)
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To,

All Manufacturers & Stakeholders

Copy to:

1. **Sr DDG TEC**
2. **AD(IT), TEC** – with request for uploading on TEC website/Portal
3. **AD(IMP&TEP), TEC** – with request for uploading on TBT Enquiry Point

Annexure-I

अनंतिम टेस्ट गाइड

टीईसी ८७०८१:२०१५

(सं: टीईसी/टीएसटीपी/जीआर/टीएक्स/ओजेसी-००२/०३/अप्रैल-२००१ को अधिक्रमित करता है)

PROVISIONAL TEST GUIDE (DRAFT)

TEC 87081:2025

(Supersedes No. TEC/TSTP/GR/TX/OJC-002/03/APR-2010)

ऑप्टिकल फाइबर केबल्स के लिए स्प्लाइस क्लोजर

(मानको सं.: टीईसी ८७०८०:२०१५)

Splice Closure for Optical Fibre Cables

(Draft Standard No.: TEC 87080:2025)

ISO 9001:2015

दूरसंचार अभियांत्रिकी केंद्र

खुर्शीदलाल भवन, जनपथ, नई दिल्ली–110001, भारत

TELECOMMUNICATION ENGINEERING CENTRE

KHURSHIDLAL BHAWAN, JANPATH, NEW DELHI–110001, INDIA

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Release 4: May, 2025

FOREWORD

Telecommunication Engineering Centre(TEC) functions under Department of Telecommunications (DOT), Government of India. Its activities include:

- Framing of TEC Standards for Generic Requirements for a Product/Equipment, Standards for Interface Requirements for a Product/Equipment, Standards for Service Requirements & Standard document of TEC for Telecom Products and Services
- Formulation of Essential Requirements (ERs) under Mandatory Testing and Certification of Telecom Equipment (MTCTE)
- Field evaluation of Telecom Products and Systems
- Designation of Conformity Assessment Bodies (CABs)/Testing facilities
- Testing & Certification of Telecom products
- Adoption of Standards
- Support to DoT on technical/technology issues

For the purpose of testing, four Regional Telecom Engineering Centres (RTECs) have been established which are located at New Delhi, Bangalore, Mumbai, and Kolkata.

ABSTRACT

The Test Guide for testing pertains to the generic requirements of a universal type of Splice Closure suitable for different types of Optical Fibre Cables (Ribbon or Non-Ribbon) used in Telecom networks.

CONTENTS

A. HISTORY SHEET

Sl.No	*TSTP / Document No.*	*Title*	*Remarks*
1.	TEC/TSTP/GR/TX/OJC-002/03/APR-2010	Test schedule and test procedure of Splice Closure for Optical Fibre Cables (Suitable for Non-Ribbon Fibre Splicing)	Release 1
2.	TEC 87081:2025	Test Guide for Standard for Generic Requirements of Splice Closure for Optical Fibre Cables	Release 2

B. INTRODUCTION

This document enumerates detailed test schedule and procedure for evaluating conformance/ functionality / requirements / performance of Standard for Generic requirements of the Splice Closure suitable for different types of Optical Fibre Cables as per Draft Standard No. **TEC 87080:2025**.The universal type of Splice Closure suitable for different types of Optical Fibre Cables (Ribbon or Non-Ribbon) used in Telecom networks.

Note1: Though every care has been taken to cover all the parameters of the standard for product/equipment correctly in this Test guide, yet to avoid any inadvertent error/ misprint, the testing officer shall ensure that all the parameters of the standard for product/equipment have been tested & verified in accordance with the provisions of the standard for product/equipment.

C. General information:

Name of the manufacturer/ Trader/Supplier with address : ----------

Make, Model no. & Serial No. : ----------

General guidelines for the Testing Officer :

1. The testing officer must ensure before taking up the test that the manufacturer is fully equipped with required test facilities.
2. The Source of procurement, Make and Model No. of the instrument are required to be checked and mentioned.
3. The requirements of the clauses as per the GR shall be checked and the observation may be recorded against each clause in detail.
4. The test results against the clauses for which test facilities are not available, must be checked & observation to be noted.
5. Additional columns or rows, as required for recording of tests results, shall be added wherever it is necessary.
6. The testing officer must ensure that necessary certificates/undertakings are obtained against the clauses wherever permissible/required and shall be annexed with the test results. All the clauses are required to be commented.

D. Testing team: *(to be filled by testing team)*

Sno.	Name	Designation	Organization	Signature
1.				
2.				

E. List of the Test Instruments:

Sno.	Name of the test instrument	Make /Model *(to be filled by testing team)*	Validity of calibration *(to be filled by testing team)*
1.	Patch Cord		
2.	Fiber Spool		
3.	OTDR		

F. Equipment Configuration Offered: *(to be filled by testing team)*

(a) <Equipment/product name> Configuration:

S.No.	Item	Details	Remarks

Relevant information like No. of cards, ports, slots, interfaces, size etc. may be filled as applicable for the product

(b) <Other equipment name> Configuration:

S.No.	Item	Details	Remarks

Relevant information like No. of cards, ports, slots, interfaces, size etc. may be filled as applicable for the product

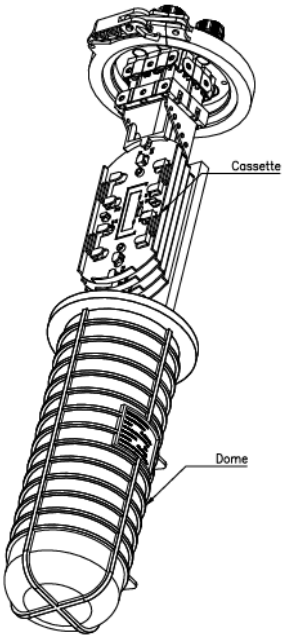
G. Equipment/System Manuals: *(to be filled by testing team)*

Availability of Maintenance manuals, Installation manual, Repair manual & User Manual etc. (Y/N)

H. Clause-wise Test Type:

Chapter 1

Clause No.	*Clause*	*Type of Test / Test No. etc. **
1.0	**Introduction :** This document describes the generic requirements of a universal type of Splice Closure suitable for different types of Optical Fibre Cables (Ribbon or Non-Ribbon) used in Telecom networks. Optical Fibre splice closure is used in the outside plant network and houses the spliced optical fibre cables and its fibres in secured conditions. It shall be possible to use it for both Armoured & Metal Free type of Optical Fibre Cables and also compatible for different types of installation practices of cable installations viz. duct, aerial & directly buried. It provides mechanical protection and environmental sealing (by mechanical sealing method only) to the spliced cables and fibres etc. It is also possible to branch out the cable from the splice closure as and when required without damaging the existing cables. A typical representative diagram/drawing of Optical Fibre Splice closure is illustrated in Figure 1 below, and may be referred for information only.	~~Note: No test is required Manufacturer compliance to be checked as per the requirement of the clause.~~ For information only

	 **Figure 1: Typical drawing of Splice Closure**	
2.0	**Functional Requirements:**	
2.1	Fibre optic splice closures shall enable: a) Direct junctions (Straight joints)/Butt splice applications. b) Branching junctions (Branch Joints)/Lateral splice applications. c) Mid sheath/Ring Cut splice applications	~~Note: Check and verify the compliance as asked for.~~ Check as per the requirement of the clause and comment.
2.2	The closures must be suitable for the same installation conditions as those used for the installation of the following types of cables: a) Underground, inside manholes, tunnels, and galleries. b) On bridges.	~~Note: Check physically and verify the compliance as per the requirement of all sub-clauses.~~ Check as per the requirement of the clause and comment.

	c) Directly buried in all type of soils. d) The closures should be suitable for all types of cable structures for splicing the optical fibre cables adopting different construction practices. It shall be designed for use with all types of cables in all environmental condition of installation. The closure must be equipped & supplied with accessories for the installation of all type of Ribbon or Non-Ribbon Optical cables having outer diameter from 8 to 18 mm, accommodating up to 96 fibres. e) The splice closure shall hold mechanically all constituent parts of the cables (sheath, central part, peripheral reinforcements, etc.).	
2.3	The splice closures shall be suitable for splicing of optical fibre cables with single mode fibres as per ITU Rec. G.652, G.655, G.656 and G.657 for transmission at wavelengths of 1310, 1550 and 1625 nm.	~~Note: Check the suitability for splicing of fibres as per the requirement of clause~~ Check as per the requirement of the clause and comment.
2.4	The splice closures shall contain fibre organizer system where the extra length of fibres and splices are stored in systematic & secured manner. The method or device for safely routing and securing buffer tube and bare fibre shall be provided.	~~Note: Verify the space as per the requirement of clause and comment for routing, securing buffer tube & bare fibre~~ Check as per the requirement of the clause and comment.

2.5	The splice closures shall allow an easy opening & re-closing without any degradation in the performance of splice closure and access to the inner junctions shall be possible without damaging the existing cables. The closure must be designed such that no installed cable is disturbed or require re-sealing of the existing cables during installation of additional cables.	Check physically for opening and closing of splice closure and comment ~~upon its effect on existing cables and~~ also for the installation of additional cables.
2.6	It shall be possible to carry out the installation without inflicting any damage to the existing fibres or the fibre splices.	~~Note: Check for the installation of new fibres and splicing without disturbing the existing fibres performance.~~ Check as per the requirement of the clause and comment
2.7	The increase in attenuation for each of the fibre splices in the installed splice closure as a result of operational strain shall not exceed 0.05 dB, measured at 1310nm & 1550 nm	~~Note: Check as per the requirement of clause and observations shall be recorded.~~ Check as per the requirement of the clause and comment
2.8	The installed splice closure shall satisfy the following mechanical requirements: The splice closure shall be resistant to mechanical stress, vibration, and impact that may result from normal operation and handling, or from any	Perform all the tests as per clause no. 4.0 and comment.

	external sources. The cable terminations shall withstand tensile stress, pressure, bending, and twisting that may result from normal operation and handling, without any leaks arising or other damage being caused to the installed splice closure. The splice closure shall comply all the tests listed in clause No. 4.0	
2.9	The minimum-bending diameter of the fibres outside the splice trays in the splice closure shall be at least 100 mm.	Check and verify the bending diameter and observations are to be noted on different samples.
2.10	It shall be possible to open and close the splice closure repeatedly with the tools as per No. TEC 89060:2006 (or latest release) and subsequent amendments issued, if any, by replacing the sealing arrangement, only if required. Any special tool if required for the installation & operation of optical fibre splice closure, the same shall be provided along with the Splice closure and kitted in each box so as the installer need not to carry on his person any additional tool etc.	~~List~~ Check all the tools required for opening and closing Splice Closure and comment. ~~. Also verify the details of tools mention~~
2.11	The materials used for manufacturing the components/ parts of the splice closure shall be compatible with those used for manufacturing the cables in all respect and shall not effect the performance of the optical fibre cables and fibres. The material used shall be resistant to solvents,	~~Note: Verify the compliance of clause.~~ Check as per the requirement of the clause and comment

	chemicals, stress cracking, creep and other materials to which they might get exposed in normal applications.	
2.12	All the fasteners used in the assembly of a closure shall be captivated to prevent any accidental loss during installation & maintenance activities.	~~Note: Check the compliance as per the requirement of clause~~ Check as per the requirement of the clause and comment
2.13	The closure assembled with section of cable containing damaged sheath shall show no evidence of water intrusion into the closure after it is subjected to water immersion test	~~Note: Check & verify the compliance as per the requirement of clause.~~ Check as per the requirement of the clause and comment
2.14	The life of the closure shall be at least 25 years and shall match the life of the cable for which it is proposed to be used.	~~Note: Check the compliance as per the requirement of clause. A certificate from the manufacturer may be obtained for life of closure~~ The calculation shall be checked & observations are to be noted.
3.0	**Technical Requirements**	

3.1	**General Description:** a) The splice closure shall have a base and domed shaped body. The dome shall be fixed on the base. The dome shaped body shall cover the entire junction while the base shall enable the entries of the optical fibre cables. b) The base and dome shall be made of thermoplastic/High Density Polyethylene/polypropylene/ un-reinforced PC/ PBT alloy material and shall have the characteristics to meet the performance requirements as in annexure - I. The material used shall have minimum hardness of Rockwell R87 or equivalent. The material shall be termite proof (The standard test on the material for termite proof-ness shall be conducted). The base and dome shall be impact resistant. The body shall be smooth with no burrs or sharp edges. Ribs on the body of Splice closure shall be provided. c) The splice closure shall be kitted with a full set of parts and materials and any associated tools or apparatus to fully prepare and seal the closure up to the maximum amount of cables and trays unless other wise specified. All materials and required tools directly related to the installation of the closure shall be kitted along with the closure for each closure.	~~Note: Check & verify as per the requirement of clause.~~ Check as per the requirement of the clause and comment Test reports from recognized laboratory or institute shall be acceptable in respect of termite proof-ness. Test reports from any third-party laboratory shall also be acceptable in this respect.

3.2	**Dimensions:** The dimensions of the splice closure i.e. of the main body (base & dome), excluding cable entry ports shall be as below: a) Length : 400 mm (Minimum) b) Internal Diameter : 220 mm (Maximum)	Check the dimensions on minimum 5 numbers of samples and record. **Sample No. Length Width** 1 2 3 4 5
3.3	**Cable entry and its Sealing arrangements:** The Splice closure design should allow for jointing together at least two pairs of cables. The base shall have a minimum 4 single cable entry ports and one port for express (looped) cable entry. The arrangement shall be provided for terminating looped or express cable by making a suitable necessary provision. All ports shall be sealed, and entry ports (sealed) shall be opened as per the requirement. The opening of any port shall not cause any interference to any existing cable. No heat shrink of any type shall be allowed on the cable for sealing. . The sealing material shall be termite proof. No consumable items shall be required for sealing. The sealing components must be reusable and shall have unlimited shelf life. The sealing arrangements shall be specified along with opening and closing arrangements by the manufacturer and the same shall be tested. **Note:** Inclusion of the specific sealing arrangement	~~Note: Check & verify as per the requirement of clause.~~ Check as per the requirement of the clause and comment

	for cable entry with screws or nut and bolts may be decided by the purchaser.	
3.3.1	It shall be possible to terminate all cables having outer diameter from 8 mm to 18 mm and the arrangement shall be provided for terminating looped or express cable by making a suitable necessary provision. Alternatively, it shall be possible to install a mid accessed cable without routing a cable tubes through a window or other closure end plate hole.	~~Note: Check & verify as per the requirement of clause.~~ Check as per the requirement of the clause and comment
3.3.2	All cable entry ports shall be independent to each other. All access and port sealing shall be accomplished by mechanical methods. No heat shrink of any type shall be allowed. In the event of growth or any other type of activity by the installer, it shall be able to access the cables and the existing trays with spliced fibres and separate the trays and the cable without disturbing any active fibre.	~~Note: Check & verify the method of sealing as per the requirement of clause & commented upon.~~ Check as per the requirement of the clause and comment
3.4	**Strength member & Cable termination and earthing arrangement:**	~~Note: Verify the termination of the cables, strength member and earthing arrangement & comment.~~
3.4.1	It shall be possible to fix the strength member(s) and the optical fibre cable firmly to the splice closure so that the strength member will not shift laterally or move inside the closure. Separate arrangements shall be made to fix strength member	~~Note: Check the strength member holding mechanism & comment.~~ Check as per the

	(FRP) and cable. FRP fixing arrangement should be such that it doesn't lead to bending of the fibre tubes.	requirement of the clause and comment
3.4.2	The closure shall have metallic and/or non-metallic internal structure in order to support and hold the cables and strength members etc. The metallic components shall be of either stainless steel or galvanized steel or electric grade aluminum or tinned copper or Brass. The metals used shall be corrosion resistant. The metallic component shall have low resistivity to withstand the current surge. The internal structure when tested shall meet the requirement of clause no. 4.16 of this GR, without causing any damage to other parts of the closure and shall also meet other performance requirement of the closure. Material of central member shall be defined.	Check the internal metallic structure. Note the materials of the metallic components and its grade if any. Check for the low resistivity materials to with stand the current surge. Comment for damage to the closure after performing the requirement of clause 4.165.
3.4.3	The metallic parts for making connection shall be made of either Brass or stainless steel or tinned copper or galvanized steel or aluminum and shall be corrosion proof and shall be corrosion proof.	~~Note: Check as per the requirement of the clause.~~ Check the internal metallic structure. Note the materials of the metallic components and its grade if any. Check for the low resistivity materials to with stand the current surge. Comment for damage to the closure after performing the

		requirement of clause 4.16.
3.4.4	For fixing cassettes, clamps should be continuous extension of metallic portion used for fixing the cable. The metallic strip should be of stainless steel grade 304 as per ASTM A 240 running throughout the length of dome up to the end.	~~Note: Verify the requirement of clause. Note the material of the metallic component and its grade.~~ Check as per the requirement of the clause and comment
3.4.5	The mechanical structure for FRP and cable fixing has to be through proper metallic plate.	~~Note: Verify the requirement of clause.~~ Check as per the requirement of the clause and comment
3.5	**Sealing arrangement:**	
3.5.1	Sealing arrangement of base and dome: a) The splice closure's base and dome shall be sealed by Mechanical sealing method using circular clamp. b) The manufacturer shall indicate clearly the method of mechanical sealing. The 'O' ring (circular in cross section) required for sealing shall be made of Neoprene/Silicon/EPDM rubber. The clamps for sealing the base to	~~A brief procedure for sealing shall be precisely explained.~~ Check as per the requirement of the clause and comment ~~Note: Check for features asked for in clause and comment~~ Check as per the

	dome shall be made of corrosion proof material (for example: Stainless steel or Thermoplastic). The clamp shall be circular in shape. A proper clamping system shall be provided which shall include the facility of lock. . The sealing material shall be termite proof. c) The clamp of the fibre optic closure shall be equipped with a locking device to prevent un-authorized entry.	requirement of the clause and comment
3.5.2	Cable sealing system: The closure shall provide cable sealing system that uses a mechanical type seal and that does not allow for any kind of heat shrinkable substance (cl. no. 3.3 of this document).	~~Note: Check as per the requirement of the clause~~ Check as per the requirement of the clause and comment
3.6	**Fibre Organiser:** Fibre organizer shall be capable of handling and organizing the fibres from different design of the cables. Fibre organizer shall be non-metallic made of ABS/ABS blended material and shall confirm to the requirements mentioned in the annexure - II.	~~Note: Check as per the requirement of the clause.~~ Check as per the requirement of the clause and comment
3.6.1	A system of cassettes or trays shall be provided on which the junctions and the extra length of fibres after splicing will be placed (fibre organization). At both ends of the cassettes, an arc type guide	~~Note: Check as per the requirement of the clause.~~ Check as per the requirement of the clause

	should be provided to hold the fibre having a diameter not less than 100 mm. Proper arrows should be provided on the cassettes for guiding the fibres.	and comment
3.6.2	The Fibre Organizers (cassettes) system shall be built in such a way as to offer the facilities of its movement about a hinge similar to turning a page in a book and it shall offer easy access to each tray such that working with fibres and splices in any one of tray shall not disturb the fibres on the other trays. This shall ensure to splice all fibres of the cables in predetermined order. Closure in which organizer trays are to be removed to provide access to fibres on other trays shall not be acceptable. For hinged type cassettes tray assembly central pin shall be provided.	~~Note: Check as per the requirement of the clause~~. Check as per the requirement of the clause and comment
3.6.3	**Size of the Cassette (Splice tray):** Length : 250 mm (minimum) Width : 100mm (minimum) Thickness : 1.5 mm (minimum) Depth : 5 mm	Check for the five samples selected randomly from the offered trays. **Sample No. Length Width** 1 2 3 4 5
3.6.4	It shall provide storage space of slack fibres (800 mm minimum length) from either sides of the cables	~~Note: Check as per the requirement of the clause.~~

	for realignment and rejoining.	Check as per the requirement of the clause and comment
3.6.5	Splice trays shall be non-metallic made of ABS/ABS blended material and shall be designed such that it shall not harm the fibres from sharp edges etc. All the trays shall have a suitable cover of ABS material.	~~Note: Check the availability of material and design of tray such that there shall not be any sharp edges etc~~ Check as per the requirement of the clause and comment
3.6.6	The minimum bending diameter allowed for the fibre coils inside the splice trays shall be at least 85 mm. During the installation & storage the buffer tubes shall not be subjected to a bend radius smaller than 40 mm.	~~Note: Check as per the requirement of the clause.~~ Check as per the requirement of the clause and comment
3.6.7	Arrangement to hold either 12 number of spliced protection sleeves per splice tray for loose fibres OR 6 number of spliced protection sleeves per splice tray for ribboned fibre shall be provided. Splice protection sleeves used for loose fibre & ribboned fibre, shall meet the requirement as per the TEC standard for GR of Splice Protection Sleeves for Optical Fibre (Type-I & Type-II) (Standard No. TEC 89020:2011 or latest release) and TEC standard for GR of Splice Protection Sleeves for ribbon Optical fibre (Standard No. TEC	~~Note: Check as per the requirement of the clause.~~ Check as per the requirement of the clause and comment

	89030:2011 or latest release) respectively.	
3.6.8	Slots of the splice tray shall be able to fix the splice protection sleeves in such a way that they will not shift or move inside the splice tray or come into conflict with the fibre coils once fixed in a slot of the tray. The slots shall not cause any stress or strain neither on splice protection sleeve nor on the optical fibres	~~Note: Check as per the requirement of the clause.~~ Check as per the requirement of the clause and comment
3.6.9	The fastening arrangement for entry of the fibres into the splice tray shall be suited to secondary coated fibres, and primary coated fibres in tubes without there being any risk of bending loss or damage to the fibres or the secondary tubes.	~~Note: Check as per the requirement of the clause.~~ Check as per the requirement of the clause and comment
3.6.10	It shall be possible to fix a minimum of 4 secondary tubes at the entry ports of each tray. No PVC or any other type of adhesive tape is permitted to hold fibre and loose tube inside the tray.	~~Note: Check as per the requirement of the clause.~~ Check as per the requirement of the clause and comment
3.6.11	It shall be possible to lead fibres from one tray to another tray inside the splice closure to allow flexibility for branch joints and in the splicing of different cable constructions to each other. Whenever a lateral cable is installed to feed either a building or secondary run cascading multiple buildings or to feed a secondary ring, a separate tray may be installed to splice the lateral fibres to the backbone fibres. No jumping of fibres between trays shall be allowed. If in the event the backbone	~~Note: Check as per the requirement of the clause.~~ Check as per the requirement of the clause and comment

	closure or primary ring closure sees multiple re-entries and continued active splicing, then it shall be an option to run a lateral cable to a second closure in the same vault and to use this closure for all service changes.	
3.6.12	It shall be possible to take any individual fibre out of the splice tray for repair during normal operation without damaging the remaining fibres.	~~Note: Check as per the requirement of the clause.~~ Check as per the requirement of the clause and comment
3.6.13	Splice trays shall be fixed inside the splice closure in such a way that this shall not loosen once fixed or shift or move in any way, due to vibration and or movement of the closure	~~Note: Check as per the requirement of the clause.~~ Check as per the requirement of the clause and comment
3.6.14	Each tray should have the capacity to store either 12 number of loose fibres OR 6 number of ribbons (with number of fibres per ribbon being 6 or 8 or 12)	~~Note: Check actually by taking out any fibre from tray and after splicing place it back to the tray. Observation shall be recorded.~~ Different types of cassettes (or splice trays) designed for accommodating either loose fibres or ribboned fibre may be tested separately.

3.6.15	The quantity of splice trays in the splice closure shall be supplied as per the number of fibres in a particular cable.	~~Note: Check as per the requirement of the clause.~~ Check as per the requirement of the clause and comment
3.7	**Transport tubes:**	
3.7.1	Transport tubes shall be provided to guide the fibres from terminations point of the cable to storage basket of the closure and or to the entry port of the cassette. The transport tube shall be made of polyolefin / silicon and shall be non-kinking type. The material of the transport tube shall not affect the primary coated fibres. It shall not be necessary to make a transition from loose tube buffers to the splice trays with transition tubing.	Check and record the inner diameter of the transport tube and outer diameter of funnel as per the clause. Examine the test report of raw materials used for manufacturing the transport tube and check it"s arrangement made for conversion of different types of cable to loose tube for transporting into different trays and cassettes check the capacity of transport tube.
3.7.2	Diameter of transport tube shall match the dimension of the funnel and able to accommodate 12 number of loose fibres OR 6 number of ribbons (with number of fibres per ribbon being 6 or 8 or 12) Alternatively, the splitter shall be able to accommodate all ranges in size of central core tube type cables.	~~Note: Check as per the requirement of the clause and also note the diameter of transport tube and funnel.~~ Check as per the requirement of the clause

		and comment
3.7.3	A suitable storage basket/slack tray shall be provided to store extra length of loose tube buffers etc. Depth of storage basket/slack tray shall be defined to accommodate around 12 m of loose tube, and shall be tested.	~~Note: Check & verify as per the requirement of clause.~~ Check as per the requirement of the clause and comment
3.7.4	A tray wedge shall be provided in each shelf for ease to enable working on the lower tray.	~~Note: Check & verify as per the requirement of clause.~~ Check as per the requirement of the clause and comment

4.0	**TESTS:**	
4.1	**Visual Test:** The splice closure shall be examined physically for the workmanship and the design technology employed. It shall be checked minutely for any flaws defects, cracks visible to naked eye.	A detailed report may be prepared about the design & technology employed. No test is required check physically for any flaws, defects, cracks etc.)

Test Results:

Observation	Remarks

4.2	**Drop and Topple Test:** **Objective:** To determine the ability of splice closure to withstand the impacts when closure is inadvertently dropped or toppled during installation, repair work or rough handing in its use. **a) Drop Test:** Height : 2 meters No. of drops : 10 **Procedure:** Drop the closure from a height of 2 meters onto a 12 mm thick steel plate bolted on the concrete floor. **Requirement:** The closure shall not exhibit any mechanical damage such as cracks or fractures in the closure housing and damage to components within the closure. **b) Topple Test:** Keep the closure in the standing position. Allow it fall freely from 45 degree to all the four directions. **Requirement:** The closure shall not exhibit any mechanical damage such as cracks or fractures in the closure housing and damage to components	Check and note down the observation in Table below

	within the closure.	

Test Results:

Observation	Remarks

Test Results:

Observation	Remarks

4.3	**Gas (AIR) Tightness Test:** **Objective:** To determine the effectiveness of sealing arrangement of splice closure. **Test Parameters:** Internal pressure : 1.5 Kg/sq. cm. Temperature : Ambient Test time : 24 hours. Gas : Dry Air **Requirement:** The fall in pressure in a period of 24 hours shall be within ≤0.05Kg/sqcm at the end of test and there shall be not be any visible flaw or defect after the test.	Check and note down the observation in Table below

Test Results:

Observation	Remarks

4.4	**Water ingress Test:** **Objective:** To determine the water tightness of the splice closure when subjected to immersion in water as per 5.4.6 of Telcordia's GR-771. **Test Parameters:** Water head : 6.00 meters Duration of immersion : 7 days. Temperature : Ambient **Requirement:** There shall not be presence of any water vapor inside the splice closure.	Check and note down the observation in Table below

Test Results:

Observation	Remarks

4.5	**Variation in attenuation (Residual Loss) Test:** **Objective:** To check the effect of the use of fibre	Check and note down the observation in Table below

	organizer and other arrangement on the transmission characteristics of optical fibres in assembled condition. **Test parameters:** a) Wavelength of operation : 1310nm & 1550 nm b) The Fibres attenuation of the spliced fibre shall be measured for the following conditions: i) Leaving the fibre un-looped, ii) After the arrangement on the tray and stabilization time of one hour. c) The change in attenuation: ≤ 0.05 dB. **Requirement:** The change in attenuation shall not increase by more than 0.05 dB measured at 1310nm & 1550 nm. The test shall be conducted on at least 50% of the fibres in a cable.	

Test Results:

Observation	Remarks

4.6	**Clamping:** **a) Cable Clamping:**	Check and note down the observation in Table below

	Objective: The cable-clamping test means to determine the effect of installing the closure, if any and on the optical transmission characteristics of the fibres and splices. **Test conditions:** 1. Place two fibre optic cables inside the closure. Very loosely secure the cables to permit splicing. Sheath retention clamps and environmental seals shall not be used at this time. 2. Splice fibers of the cables. 3. Measure and record the initial value for the optical attenuation of the 50% fibers of the cable. 4. Assemble the closure using all associated cable clamping and sealing hardware according to the manufacture's instructions. Rigid and non-rigid strength members shall also be terminated per the manufacturer's instructions. Care should be taken to minimize movement of the splices. 5. Repeat the optical measurements on the same 50% fibre of the cable. **Requirement:** The change in attenuation shall not be more than 0.05 dB measured at 1310nm & 1550 nm. **b) Cable Axial Tension (Sheath Retention) Test:** **Objective:** To check the cable and sheath holding mechanism for the axial tension if applied to the	

	assembled Splice Closure. **Test parameters:** Tension applied longitudinally on cables.: 50 Kg Test Time : 30 minutes Internal pressure : 1.5 Kg/sq. cm. Temperature : Ambient Change in pressure allowed : ≤ 0.05kg/sq cm. The load shall be applied individually to each cable **Requirement:** 1. The holding mechanism shall not cause any damage to the cable or the clamping hardware. 2. There shall be no visible flaws or defects after the test.	

Test Results:

Observation	Remarks

Observation	Remarks

4.7	**Torsion Test:** **Objective:** To check the effect of torque on the cables of the splice closure. **Test Parameters:** Torque : 10 x D [Nm], where D is the external diameter of the cable in mm (Max. 50 Nm) Internal pressure : 0.5 Kg/sq. cm. Distance from the entry port : 250 mm Rotation : 90° max. Temperature : Ambient Number of cycles : 5 Holding Time : 5 minutes at each rotation Change in pressure allowed : ≤ 0.05kg/sq cm. The extending cables shall be clamped rigidly at specified distance. Only one cable shall be clamped at a time but the test shall be repeated with each extending cable. The closure shall be axially rotated through 90° and retained for five minutes. It shall be rotated to normal position and then towards to the opposite direction. **Requirement:** 1. There shall not be any flaws, defects, cracks visible to naked eye. 2. There shall not be any fall in pressure more than the prescribed limit.	Check and note down the observation in Table below

Test Results:

Observation	Remarks

4.8	**Flexure Test:** **Objective:** To test the Flexure strength of the splice closure. **Test Parameters:** 1. Internal pressure : 0.5 Kg/sq. cm. Force : Max 500N and 30 degree bending force application 10XD from the end of cable seal sleeve. (D is the dia. of cable in mm). 3. No. of cycle : 5 4. Holding time : 5 minutes 5. Change in pressure allowed : ≤ 0.05kg/sq cm. **Requirement:** The sample shall be checked for gas tightness. There shall not be any fall in the air pressure more than the prescribed limit and there shall not be any physical damage to the cable or the closure.	Check and note down the observation in Table below

Test Results:

Observation	Remarks

4.9	**Impact Test:** **Objective:** To determine the ability of splice closure to with stand impacts likely to occur during installation. **Test Parameters:** Internal Pressure : 0.5 Kg/sq. cm. Striking Force : 5 Kg Dropping height : 500 mm Radius of spherical weight : 50 mm Location and Number of impacts : 3 Impacts along the length of closure each, at 3 different points located at 120° along the circumference (Total 9 impacts) At least 3 impacts on the mould line. Change in pressure allowed : ≤ 0.05kg/sq cm. **Requirement:** The sample shall be checked for any cracks, permanent deformation or fractures and gas tightness. There shall not be any fall in the air pressure more than the prescribed limit.	Check and note down the observation in Table below

Test Results:

Observation	Remarks

4.10	**Static Load Test:** **Objective:** To determine the mechanical strength capability of splice closure under the action of static load. **Test Parameters:** Internal Pressure : 0.5 Kg/sq. cm. Static Load : 250 kg Duration for keeping load : 24 hours Change in pressure allowed : ≤ 0.05kg/sq cm. **Requirement:** The sample shall be checked for any cracks, permanent deformation or fractures and gas tightness test after completion of test. There shall not be any fall in the air pressure more than the prescribed limit.	Check and note down the observation in Table below

Test Results:

Observation	Remarks

4.11	**Thermal Ageing:** **Objective:** Sealing components (gasket, grommets. O-ring, seals etc.) used in a closure shall not permit the entry of water into the closure after thermal aging at 90 ^{0} C + 1^{0} C for 720 hours. **Procedure:** Place two sets of components (gasket, grommets. O-ring, seals etc.) in an air oven perpendicular to air flow. Age the components at 90^{0}C for 720 hours (30 days). Allow the components to stabilize at room temperature for min 24 hrs. **Requirement:** There shall not be any visible deterioration or deformation or melting or cracking of the samples. This test should be conducted on the sealed closure followed by the Gas tightness test. **Note:** The aged components shall be used on the closure subject to remaining environmental Test.	Check and note down the observation in Table below

Test Results:

Observation	Remarks

4.12	**Environmental cycle:** **Objective:** To determine the working capability of splice closure for climatic conditions. **Test Parameters:** Lowest temperature : -20 ^{0} C Highest temperature : 60^0 C Dwell Time : 4 hrs Transition time : 2 hrs Cycle duration : 10 and 1/2 hrs. Number of cycles : 20 Closed system pressure : 0.5 kg/sq. cm. Change in pressure allowed : $\leq$ 0.05kg/sq cm. Humidity to be kept at 95% at 60 ^{0} C and uncontrolled % humidity for all other temperature during the cycle. **Requirement:** 1. The sample shall be checked for any cracks, permanent deformation or fractures and gas tightness. 2. There shall not be any fall in the air pressure more than the prescribed limit and the change in attenuation shall not be more than 0.05 dB measured at 1310nm & 1550 nm.	Check and note down the observation in Table below

Test Results:

Observation	Remarks

4.13	**Salt spray (Mist) Test (Corrosion Test):** **Objective:** To determine the suitability of the splice closure and all metallic components in salt laden atmosphere **Test Parameters:** Salt mist test as per TEC document SD: QM-333 (or TEC 14016:2010) {latest issue}. **Requirement:** It shall meet the requirements of salt mist test and there shall not be any damage or any evidence of corrosion to the closure.	Check and note down the observation in Table below

Test Results:

Observation	Remarks

4.14	**Vibration Test:** **Objective:** To check the effect of vibration on splice closure and its accessories. **Test parameters:** 3 Planes : (X-axis, Y-axis, Z-axis) Sweep : (10-300) Hz ± 2% at 1octave ± 10% per minute a) sine sweep (10-28) ± 1 Hz 0.1" (2.5 mm) double amplitude b) sine sweep (28-300) Hz ± 2% max. 4 g acceleration Time : 2 hours each axis Internal pressure : 0.5 kg/sq cm. Change in pressure allowed : ≤ 0.05kg/sq cm. **Requirement:** The sample shall be checked for any cracks, permanent deformation or fractures and gas tightness. There shall not be any fall in the air pressure more than the prescribed limit.	Check and note down the observation in Table below

Test Results:

Observation	Remarks

4.15	**Aggressive Media Test:** **a. Resistance to aggressive media test** **Test conditions:** The samples shall be checked under internal pressure of 0.5 kg/sq cm. in the solutions as stated below at ambient temperature: Change in pressure allowed: ≤ 0.05kg/sq cm. Solution — Test Time pH 2 — 5 days pH 12 — 5 days Kerosene — 5 days Petroleum jelly — 5 days Fuel Oil — 5 days **Requirement:** The sample shall be checked for the receptivity of splice closure in the given media. There shall not be any fall in the air pressure more than the prescribed limit. **b) Resistance to stress cracking test** **Test conditions:** The samples shall be checked under internal pressure of 0.5-kg/sq cm. in the solutions as stated below:	Check and note down the observation in Table below

	Test temperature : 50 ± 2° C Test medium : 10% Igepal Internal pressure : 0.5 kg/sq cm. Test time : 7 days Change in pressure allowed : ≤ 0.05kg/sq cm. **Requirement:** The sample shall be checked for the receptivity of splice closure in the given media. There shall not be any fall in the air pressure more than the prescribed limit.	

Test Results:

Observation	Remarks

Observation	Remarks

4.16	**Current Surge Test (Applicable for Armoured Optical fibre cable)** **Objective:** This test is intended to check that externally grounded closures can safely conduct an accidental current surge on the cable through a controlled metal path to ground. **Test Parameters:**	Check and note down the observation in Table below

	The internal current carrying components shall with stand a current surge of 1000 Amps for 5 seconds in case of Armoured optical fibre cable. **Requirement:** No damage to any component part of the splice closure.	

Test Results:

Observation	Remarks

4.17	**UV test:** **Objective:** To determine the effect of ultraviolet exposure if any on the Tensile and elongation properties of the non - metallic materials. **Test Method:** ASTM G-154 (latest issue) or as per Telcordia's GR 771 issue 2, July 2008 Duration: 2000 hours. **Test procedure:** 1. Prepare four-test sample of the non metallic material. Keep two samples inside the chamber and expose them to ultraviolet radiation.	Check and note down the observation in Table below

	Continue the test for 2000 hours. 2. Check and compare the properties of the tensile and elongation of the two samples subject to radiation with the other 2 samples kept outside at ambient. **Requirement:** 1. There should not be any crack or damage to the sample. 2. The parameters of tensile and elongation shall not be reduced more than 20 % from the two samples at ambient. **Note:** A test certificate from Govt. of India recognized or accredited laboratory/ institute may be acceptable.	

Test Results:

Observation	Remarks

4.18	**Galvanized Test:** **Objective:** To check galvanized coating and the	Check and note down the observation in Table below

	quality of galvanizing on metallic components of splice closure **Test Method**: IS: 2633-1972 for uniformity **Requirement**: The metallic components shall meet the requirement of the specifications.	

Test Results:

Observation	Remarks

5.0	**Consumable Spares:** As per Annexure -III	

6.0	**Engineering Requirements:**	
6.1	The splice closure shall be manufactured as per the latest state of art technology.	~~Note: Verify the compliance and comment on technology adopted.~~ Check as per the requirement of the clause and comment
6.2	The splice closure shall be compact and composite in construction. The mechanical design and construction of the splice closure shall be inherently	~~Note: Check as per the requirement of clause and comment for all~~

	robust and rigid under all conditions of installation, operation, replacement, storage and transportation etc. The manufacturer shall define the weight of the closure. It shall be made up of heat resistance material.	~~features asked for.~~ ~~Sample No. weight in Kg~~ ~~1~~ ~~2~~ ~~3~~ Note and record the weight of the Splice Closure furnished by the manufacturer. Check as per the requirement of the clause and comment
6.3	**The design of the closure must ensure:** a) The splice closure shall be possible to be sealed hermetically and shall be able to prevent the intrusion of liquid and vapor into the closure interior. The neoprene/Silicon/EPDM_rubber O-ring/gasket (circular in cross section) along with a circular clamp is to be used. b) Mechanical and Optical protection of the splice. c) Environmental protection of the splice. d) It shall be possible to pressurise the closure after installation to check the integrity of the environmental seal. The splice closure must be equipped with an integrated pressure valve. The valve shall be such mounted as to avoid any	~~Note: Check and verify as per the requirement of all sub-clauses and commented upon.~~ Check as per the requirement of the clause and comment.

	leakage or entry of moisture etc. e) The integrity of the connections and cable seals, fibres and buffers during mounting, functioning and dismounting. f) The possibility of the repeated, reopening and re-closing of the dome and base for access to fibre organizer shall be made available without removing or modifying the entire structure but only by replacing the sealing reusable component, if required. g) The addition of new cables shall be possible without replacing the complete closure, when a growth scenario is encountered. The closure shall allow the installation of a mid-sheath cable in addition to the 1st installation of either a butt or mid sheath splice. The addition of a new cable must be accomplished without the use of any special tool, if required and must not require the replacement or addition of any other closure parts. h) It shall be able to work in saline atmosphere in coastal areas and should be protected against corrosion.	
6.4	**Marking on body of the splice closures:** The following information by marking on the body of the splice closure shall be provided by way of engraving or laser printing method a) Manufacturer's name & date / year of production. b) Type of Joint closure - (for example i.e. ARMJC)	~~Note: Check as per the requirement of clause and comment~~ Check as per the requirement of the clause and comment.

	c) Number of splice (organizer) cassettes d) Number of Splices per cassette. e) Batch number f) Serial Number g) Model No. h) Capacity i.e. No. of cables and fibres i) TEC GR No.	
7.0	**Quality Requirements:**	
7.1	The instrument shall be manufactured in accordance with international quality standards ISO 9001:2015 or latest issue for which the manufacturer should be duly accredited. A quality plan describing the quality assurance system followed by the manufacturer would be required to be submitted by the manufacturer.	~~Note: Check the compliance certificate as per the requirement of clause. Check the validity of ISO certificate.~~ Note that the equipment is manufactured in accordance with international quality standards ISO 9001:2015 or latest issue. Also a quality plan describing the quality assurance system followed by the manufacturer should be submitted.
8.0	**Environmental Requirements:**	
8.1	The splice closure shall meet the environmental requirements as per document QM-333 (or TEC	~~Note: Perform the test as per the requirements of~~

	14016:2010) (Latest issue) specification for environmental testing. The applicable tests shall be for environment category "C" including drop & topple, vibration and corrosion tests, unless otherwise specified separately.	~~clause and~~ ~~Comment.~~ Environmental cycle tests as per QM-333 Category "C" shall be carried out separately. Test reports from any NABL accredited test lab or any Conformity Assessment Body (CAB) recognized by TEC shall be acceptable.
8.2	The splice closure shall meet Telcordia's GR-771 requirement for environment applications including section on sealing.	~~Note: Check & verify as per the requirement of clause.~~ Check as per the requirement of the clause and comment.
9.0	**Safety Requirements:** The materials used for manufacturing the components parts of the closure should not be noxious for the installation and maintenance personnel and shall not cause any environmental pollution. It shall be dermatologically safe. The closure installation shall not require the use of any noxious contact cements or liquid adhesives.	~~Note: Verify the lab safety certificates for raw materials used and commented upon.~~ Check as per the requirement of the clause and comment.

CHAPTER-2

Clause No.	*Clause*	*Type of Test / Test No. etc. **

10.0	**Documentation :** The technical literature in English language along with detailed drawings of all the assemblies and parts shall be provided. All the aspects of Installation, Operation and Maintenance including illustration of external and internal parts shall be covered in the manual. The soft copy as well as hard copy of the manuals shall also be provided. The manuals shall include the following:	~~Note: Check as per the requirement of all the sub-clauses.~~ Check as per the requirement of the clause and comment.
	a) Installation, Operation and Maintenance details of closure	~~Note: Check as per the requirement of all the sub-clauses.~~ Check as per the requirement of the clause and comment.
	b) Safety measures to be observed in handling the closure.	~~Note: Check as per the requirement of all the sub-clauses.~~ Check as per the requirement of the clause and comment.
	c) Precautions for operation and maintenance	~~Note: Check as per the requirement of all the sub-clauses.~~ Check as per the requirement of the clause and comment.
	d) Illustration of internal and external parts.	~~Note: Check as per the requirement of all the sub-~~

		~~clauses.~~ Check as per the requirement of the clause and comment.
	e) List of the parts including their source and ordering information for all the replaceable parts.	~~Note: Check as per the requirement of all the sub-clauses.~~ Check as per the requirement of the clause and comment.
	f) Detailed method for re-opening and re-closing of the splice closure.	~~Note: Check as per the requirement of all the sub-clauses.~~ Check as per the requirement of the clause and comment.
	g) Each splice closure shall be supplied along with small booklet giving the installation method etc. in brief to help the installer in field by way of illustrations.	~~Note: Check as per the requirement of all the sub-clauses.~~ Check as per the requirement of the clause and comment.
	h) Packaging list of all items included in the shipping container.	~~Note: Check as per the requirement of all the sub-clauses.~~ Check as per the requirement of the clause and comment.
	i) A flow chart for the installation of the closure (giving the diagrams and details of parts etc.) shall be provided along with the each closure.	~~Note: Check as per the requirement of all the sub-clauses.~~ Check as per the requirement of the clause and comment.
11.0	**Shipping Container and Packaging Arrangement:**	

	a) All the materials and component parts specified by the manufacturer for installation shall be shipped in a single container. Packaging of parts in the carton shall be such that the parts become available in the order in which they are needed.	~~Note: Check as per the requirement of all the sub-clauses.~~ Check as per the requirement of the clause and comment.
	b) The shipping container and the packaging equipment shall be reusable, recyclable or biodegradable.	~~Note: Check as per the requirement of all the sub-clauses.~~ Check as per the requirement of the clause and comment.
	c) The packaged parts shall be clearly labeled with part number & names consistent with those given in the instructions	~~Note: Check as per the requirement of all the sub-clauses.~~ Check as per the requirement of the clause and comment.
	d) If consumable material with a limited shelf life is packaged with the closure assembly, the expiration date shall be clearly marked.	~~Note: Check as per the requirement of all the sub-clauses.~~ Check as per the requirement of the clause and comment.
	e) The packaging shall be adequate to ensure that no damage will occur to the splice closure or materials under normal handling, shipping and storage in reasonably dry unheated quarters.	~~Note: Check as per the requirement of all the sub-clauses.~~ Check as per the requirement of the clause and comment.
12.0	**Guidelines for the Purchaser** Following clauses shall be applicable for Splice closure for Armoured Optical fibre cable:	~~**Note:** The earthlings of the splice closure shall be carried out, only in case of armoured optical fibre cables.~~

	i. The size of the cassette (or splice tray) to be used inside the splice closure is mentioned in Clause No. 3.6.3 of this GR. The purchaser may procure a higher size splice tray as per their requirement, provided the given splice closure meets the requirements as specified in this GR. ii. The bond clamp shall remain firmly attached to the cable shield of an Armoured cable when the clamp to sheath joint is subjected to a tensile load of 9 kg. There shall be no evidence of the clamps loosening or damage to the clamp or to the cable that would reduce its current carrying capacity as required by AC surge current test (clause no. 4.16) after the removal of the load. The closure must be designed to allow independent and common bonding. iii. Arrangement shall be made inside the closure to ensure metallic continuity with the metallic parts of the cables. iv. The point of connection on the splice closure for earthling shall be waterproof and airtight to avoid ingress of moisture into the closure. v. A grounding device and mounting accessories shall be provided for grounding the splice closure if required by the user,	Guidelines are for the reference of the purchaser only

	and in such cases: a. It shall be possible to make metallic connection on the body of the closure for proper grounding arrangement of the closure. b. All the fixture like lugs (thimble) suitable to accommodate earth wire of 6 SWG, washers, bolt & nuts etc. shall be provided. Note: The earthing of the splice closure may be carried out, only in case of armoured optical fibre cables, if required by the user or purchaser.	
13.0	**Procedure for Issue of Approval Certificate**	
13.1	The approval certificate against this Standard for GR shall be issued after successful testing against the clauses of this Standard.	
13.2	There may be variations in the fibre holding arrangement within the cassette (splice tray) of the Splice closure depending on the application of the splice closure whether for Ribbon or Non-Ribbon optical fibre cables. The manufacturer seeking approval certificate against this Standard for GR for Splice closure shall explicitly mention the different types of the cassettes (splice trays) with their corresponding application (i.e. whether for accommodating loose fibres or ribboned fibre), that intend to be put inside the given splice closure.	
13.3	The different types of cassette(or splice tray) designed for accommodating either loose fibres or ribboned fibre may be covered under a single approval certificate issued against this Standard for GR for Splice closure, provided they meet the requirements as specified in this GR and testing being done for each type of cassette(or splice tray).	
13.4	The approval certificate issued against this Standard for GR for Splice closure should clearly	

	mention the types of cassettes (splice trays) used inside the given splice closure and whether these cassettes (splice trays) types are for accommodating loose fibres or ribboned fibres.

***** *Physical Check/Declaration/Documentation/ Report from Accredited test lab/ Functional verification / Information / Test No.*

I. SUMMARY OF TEST RESULTS

GR/IR No._____

TSTP No._____

Equipment name & Model No._____

Clause No.	*Compliance (Complied /Not Complied / Submitted/Not Submitted / Not Applicable)*	*Remarks / Test Report Annexure No.*

[Add as per requirement]

Date:

Place: *Signature & Name of TEC testing Officer /*

** Signature of Applicant / Authorized Signatory*

**** Section J as given above is also to be submitted by the Applicant/ Authorised signatory as part of in-house test results along with Form-A. The Authorised signatory shall be the same as the one for Form 'A'.***

ANNEXURE-II

Comments on draft Test Guide titled “Splice Closure for Optical Fibre Cables”

(Draft Test Guide No. TEC 87081:2025)

Name of Manufacturer/Stakeholder:

Organization:

Contact details:

Clause No.	Clause	Comments	Other Remarks, if any