REASONED DOCUMENT IN RESPONSE TO UPLOADED DRAFT ITEM SPECIFIC GUIDELINES & SCHEDULE OF TECHNICAL REQUIREMENTS FOR MANUFACTURE AND SUPPLY OF GLASS FILLED NYLON-66 (GFN) & HIGH VISCOUS NYLON-66 (HVN) INSULATING LINERS DOCUMENT NO. TDG 0005 REV. '2' '3'

Para No.	Existing provision in STR of GFN-66/HVN-66 Liner	Comments /Suggestions by approved vendors	RDSO's Remarks	Modified provision in STR of GFN-66/HVN-66 Liner (Modification shown in red)
1.0	Purpose: These guidelines are based on Indian Railway Standard specification for manufacture of Glass Filled Nylon-66 & High Viscous Nylon-66 Insulating Liners to IRS T-44-2023 (Rev. 2) & The purpose is to specifically define the guidelines and technical & other requirements for manufacture & supply of Glass Filled Nylon-66 & High Viscous Nylon-66 Insulating Liners.	No Comments	No Change proposed	Purpose: These guidelines are based on Indian Railway Standard specification for manufacture of Glass Filled Nylon-66 & High Viscous Nylon-66 Insulating Liners to IRS T-44-2023 (Rev. 2 Rev. 3) & The purpose is to specifically define the guidelines and technical & other requirements for manufacture & supply of Glass Filled Nylon-66 & High Viscous Nylon-66 Insulating Liners.
2.0	Scope of Application: This document shall be applicable for manufacturing & supply of Glass Filled Nylon-66 & High Viscous Nylon-66 Insulating Liners. This document shall be applicable for initial capability assessment, periodic Quality Audit for extension of approval, up-gradation of vendors and maintaining their approved list for Glass Filled Nylon-66 & High Viscous Nylon-66 Insulating Liners.	No Comments	No change proposed	Scope of Application: This document shall be applicable for manufacturing & supply of Glass Filled Nylon-66 & High Viscous Nylon-66 Insulating Liners. This document shall be applicable for initial capability assessment, periodic Quality Audit for extension of approval, up-gradation of vendors and maintaining their approved list for Glass Filled Nylon-66 & High Viscous Nylon-66 Insulating Liners.
3.0	Procedure / Details: Procedure/details are annexed.	No Comments	No change proposed	Procedure/ Details: Procedure/details are annexed.
4.0	Referenced Documents: i) IRS Specification for Glass Filled Nylon-66 & High Viscous Nylon-66 Insulating Liners, IRS T-44-2023 ii) ISO Apex Documents of RDSO	No Comments	No change proposed	Referenced Documents: i) IRS Specification for Glass Filled Nylon-66 & High Viscous Nylon-66 Insulating Liners, IRS T-44-2023 ii) ISO Apex Documents of RDSO
5.0	Referenced Documents of External Origin None	No Comments	No change proposed	Referenced Documents of External Origin None
6.0	Associated Records None	No Comments	No change proposed	Associated Records None
8.0	The process of approval of Glass Filled Nylon-66 Insulating Liners and High Viscous Nylon-66 Insulating Liners will involve following steps / activities. i) Vendor seeking fresh registration for the particular item (GFN/HVN) shall register online on	No Comments	No change proposed	The process of approval of Glass Filled Nylon-66 Insulating Liners and High Viscous Nylon-66 Insulating Liners will involve following steps / activities. i) Vendor seeking fresh registration for the particular item (GFN/HVN) shall register online

Dema	Evisting provision in CTD of CTN CC/LIVIN CC Live	Comments		Modified provision in STR of CEN 66 (UVA) 66
Para	Existing provision in STR of GFN-66/HVN-66 Liner	Comments	RDSO's Remarks	Modified provision in STR of GFN-66/HVN-66
No.		/Suggestions by		Liner (Modification shown in red)
		approved vendors		
	UVAM portal website https://www.ireps.gov.in .			on UVAM portal website
	ii) Submit duly filled-in online fresh application form			https://www.ireps.gov.in.
	along with vendor registration charges as applicable			ii) Submit duly filled-in online fresh application
	at the time of submission.			form along with vendor registration charges as
	iii) Upload the document as mentioned along with			applicable at the time of submission.
	QAP and legal documents for technical approval by			iii) Upload the document as mentioned along
	this office.			with QAP and legal documents for technical
	iv) The specification & relevant drawings are			approval by this office.
	available on RDSO website & UVAM portal and same			iv) The specification & relevant drawings are
	can be downloaded from RDSO website. The			available on RDSO website & UVAM portal and
	charges of these documents are included in fresh			same can be downloaded from RDSO website.
	registration charges and no need to deposit			The charges of these documents are included in
	separate charges for these documents at the first			fresh registration charges and no need to
	time.			deposit separate charges for these documents
	v) Application / proforma along with documents &			at the first time.
	charges will be scrutinized by RDSO and if details are			v) Application / proforma along with
	found satisfactory, the works unit of the firm will be			documents & charges will be scrutinized by
	visited for Capability Assessment.			RDSO and if details are found satisfactory, the
	vi) If any shortcomings are observed during the			works unit of the firm will be visited for
	visit, the same will be conveyed to the firm for their			Capability Assessment.
	compliance.			vi) If any shortcomings are observed during the
	vii) After satisfactory compliance by the firm, the			visit, the same will be conveyed to the firm for
	firm shall be advised to submit Inspection gauges of			their compliance.
	the drawings for the particular item applied for will			vii) After satisfactory compliance by the firm,
	be checked and approved prior to / during STR			the firm shall be advised to submit Inspection
	verification visit.			gauges of the drawings for the particular item
	(viii)After satisfactory verification of documents and			applied for will be checked and approved prior
	CCA (Capacity cum Capability Assessment), the			to / during STR verification visit.
	name of the firm shall be considered to be placed in			(viii)After satisfactory verification of
	the "List of RDSO vendors for Developmental order"			documents and CCA (Capacity cum Capability
	for 24 months period subject to technical clearance			Assessment), the name of the firm shall be
	of Prototype / Test samples and successful			considered to be placed in the "List of RDSO
	completion of field trials for the 6 months duration			vendors for Developmental order" for 24
	·			months period subject to technical clearance of
	directory). The field trial shall be required only for			Prototype / Test samples and successful
	HVN liners.			completion of field trials for the 6 months
				duration (to be mentioned in check note in
				Vendor directory). The field trial shall be
	the firm would be advised to start trial production			required only for HVN liners.
	completion of field trials for the 6 months duration (to be mentioned in check note in Vendor directory). The field trial shall be required only for HVN liners. (ix) After clearance / approval of two sets of inspection gauges as mentioned in para (vii) above,			vendors for Developmental order" months period subject to technical clear Prototype / Test samples and su- completion of field trials for the 6 duration (to be mentioned in check Vendor directory). The field trial si

Para	Existing provision in STR of GFN-66/HVN-66 Liner	Comments	RDSO's Remarks	Modified provision in STR of GFN-66/HVN-66
No.	Existing provision in 31K of Grid-00/11414-00 Lines	/Suggestions by	ND30 3 Nellial K3	Liner (Modification shown in red)
140.		approved vendors		Liner (Wodincation shown in red)
	and to submit internal test results in formats as per			(ix) After clearance / approval of two sets of
	Quality Assurance Programme (QAP) for			inspection gauges as mentioned in para (vii)
	manufacture and testing. If the internal test results			above, the firm would be advised to start trial
	are found satisfactory, the firm would be advised for			production and to submit internal test results in
	drawl of samples manufactured in presence of RDSO			formats as per Quality Assurance Programme
	official from their works.			(QAP) for manufacture and testing. If the
	(x) The testing of the samples drawn will be carried			internal test results are found satisfactory, the
	out as per clause laid down in IRS Specification for			firm would be advised for drawl of samples
	Glass Filled Nylon-66 & High Viscous Nylon-66			manufactured in presence of RDSO official from
	Insulating Liners, Sl. No. T-44-2023 (Rev. 2). If test			their works.
	report is found satisfactory and other conditions are			(x) The testing of the samples drawn will be
	fulfilled, the conditional check note in Vendor			carried out as per clause laid down in IRS
	directory as mentioned in para viii) above shall be			Specification for Glass Filled Nylon-66 & High
	removed. The firm will be advised to start			Viscous Nylon-66 Insulating Liners, Sl. No. T-44-
	production of the product. If implementation of			2023 (Rev. 2). If test report is found satisfactory
	QAP is found satisfactory, the purchaser may be			and other conditions are fulfilled, the
	advised to get the inspection of the initial quantity			conditional check note in Vendor directory as
	by RDSO/nominated inspecting agency and regular			mentioned in para viii) above shall be removed.
	quantity by nominated inspecting agency.			The firm will be advised to start production of
	(xi) In the case of new Vendor/firms the process of			the product. If implementation of QAP is found
	approval will be initiated only if the firm has applied			satisfactory, the purchaser may be advised to
	on-line or has been placed with developmental			get the inspection of the initial quantity by
	order from Zonal Railways / Railway Board or given			RDSO/nominated inspecting agency and regular
	go ahead from RDSO as per instructions /guidelines			quantity by nominated inspecting agency.
	of Railway Board from time to time. Rest of the			(xi) In the case of new Vendor/firms the process
	procedure for approval will be the same as detailed			of approval will be initiated only if the firm has
	in para1.0 above.			applied on-line or has been placed with
	(xii) In case, firms approved for manufacturing of			developmental order from Zonal Railways /
	one drawing for a particular item (GFN/HVN),			Railway Board or given go ahead from RDSO as
	desires to develop the product to other drawings for			per instructions /guidelines of Railway Board
	the same item, the requisite inspection gauges will			from time to time. Rest of the procedure for
	have to be approved by RDSO. After getting			approval will be the same as detailed in para1.0
	satisfactory internal test reports, the samples will be			above.
	drawn and tested at RDSO. If test results on samples			(xii) In case, firms approved for manufacturing
	found satisfactory, the firm would be considered for			of one drawing for a particular item
	inclusion in the "List of RDSO Vendors for			(GFN/HVN), desires to develop the product to
	Developmental Orders" as per the provisions of			other drawings for the same item, the requisite
	latest ISO apex documents.			inspection gauges will have to be approved by
	(xiii) Up-gradation from "List of RDSO Vendors for			RDSO. After getting satisfactory internal test

Para	Existing provision in STR of GFN-66/HVN-66 Liner	Comments	RDSO's Remarks	Modified provision in STR of GFN-66/HVN-66
No.	Existing provision in 51% of driv-00/11VN-00 Lines	/Suggestions by	ND30 3 Remarks	Liner (Modification shown in red)
1101		approved vendors		ziner (Wountedton Snown in rea)
	Developmental Orders" to "List of Approved Vendors" shall be as per procedure mentioned in RDSO's latest ISO apex document	approved remains		reports, the samples will be drawn and tested at RDSO. If test results on samples found satisfactory, the firm would be considered for inclusion in the "List of RDSO Vendors for Developmental Orders" as per the provisions of latest ISO apex documents. (xiii) Up-gradation from "List of RDSO Vendors for Developmental Orders" to "List of Approved Vendors" shall be as per procedure mentioned in RDSO and the state of the same and the
Α	ITEM SPECIFIC GUIDELINES:	No Comments	No change proposed	in RDSO's latest ISO apex document ITEM SPECIFIC GUIDELINES:
A	In addition to the procedure for vendor approval given in the 'ISO Documents' the following specific guidelines shall also be applicable to vendor seeking approval for manufacture of Glass Filled Nylon-66 & High Viscous Nylon-66 Insulating Liners. 1. After successful assessment of firm in accordance with the 'ISO Documents' and approval of inspection gauges the firm will be asked to submit Internal test results of type tests and product testing as per scheme of testing for pre- acceptance test for approval of samples as embodied in the IRS specification for Glass Filled Nylon-66 & High viscous Nylon-66 liners IRS.T-44-2023. 2. After the above results are considered acceptable by RDSO, samples for type tests and product testing for approval in RDSO shall be required to be manufactured in the presence of RDSO's representative and these shall be drawn by him. The samples for type tests and product testing shall be drawn in the same go. 2.1 Samples for approval shall be tested in two stages as given below: i) For type test ii) For product testing. 2.2 The product testing shall be undertaken only if	No Comments	No change proposed	In addition to the procedure for vendor approval given in the 'ISO Documents' the following specific guidelines shall also be applicable to vendor seeking approval for manufacture of Glass Filled Nylon-66 & High Viscous Nylon-66 Insulating Liners. 1. After successful assessment of firm in accordance with the 'ISO Documents' and approval of inspection gauges the firm will be asked to submit Internal test results of type tests and product testing as per scheme of testing for pre- acceptance test for approval of samples as embodied in the IRS specification for Glass Filled Nylon-66 & High viscous Nylon-66 liners IRS.T-44-2023. 2. After the above results are considered acceptable by RDSO, samples for type tests and product testing for approval in RDSO shall be required to be manufactured in the presence of RDSO's representative and these shall be drawn by him. The samples for type tests and product testing shall be drawn in the same go. 2.1 Samples for approval shall be tested in two stages as given below:- i) For type test
	the samples have passed in the 'type tests'. If the samples fail in the type test, samples in product			ii) For product testing.2.2 The product testing shall be undertaken
	testing shall also be deemed to have failed and fresh			only if the samples have passed in the 'type

Para	Existing provision in STR of GEN 66 /UVN 66 Lines	Comments	RDSO's Remarks	Modified provision in STR of GEN 66/HVN 66
	Existing provision in STR of GFN-66/HVN-66 Liner		RDSO'S Remarks	Modified provision in STR of GFN-66/HVN-66
No.		/Suggestions by approved vendors		Liner (Modification shown in red)
	samples shall be drawn both for the 'type tests' as	approtes telladis		tests'. If the samples fail in the type test,
	well as for the 'product testing'. 2.3 If the samples			samples in product testing shall also be deemed
	pass in type tests and fail in product testing fresh			to have failed and fresh samples shall be drawn
	samples shall be invited only for the product testing.			both for the 'type tests' as well as for the
	2.4 It shall be the firm's responsibility to ensure that			'product testing'. 2.3 If the samples pass in type
	'as moulded' samples/specimen are sealed and			tests and fail in product testing fresh samples
	guarded against the ingress of moisture. The			shall be invited only for the product testing.
	samples should bear the signature of the RDSO's			2.4 It shall be the firm's responsibility to ensure
	representative deputed to witness production and			that 'as moulded' samples/specimen are sealed
	to draw the samples and signatures of the			and guarded against the ingress of moisture.
	representative of the firm.			The samples should bear the signature of the
	2.5 The samples will be left in sealed condition with			RDSO's representative deputed to witness
	the firm and it shall be the responsibility of firm to			production and to draw the samples and
	deliver the same to RDSO (M&C Dte.) within 15 days			signatures of the representative of the firm.
	from the date of drawl of samples. The samples			2.5 The samples will be left in sealed condition
	along with a set of approved gauges shall be sent to			with the firm and it shall be the responsibility of
	RDSO, with a letter addressed to the Director			firm to deliver the same to RDSO (M&C Dte.)
	General/M&C RDSO, Lucknow and copy to the			within 15 days from the date of drawl of
	Director General/Track, RDSO, Lucknow.			samples. The samples along with a set of
	2.6 If the samples are not found satisfactory as per			approved gauges shall be sent to RDSO, with a
	specification in RDSO testing, the firm will be			letter addressed to the Director General/M&C
	intimated to submit fresh samples for testing as per			RDSO, Lucknow and copy to the Director
	the procedure described above.			General/Track, RDSO, Lucknow.
	2.7 After the passing of samples both in type tests as			2.6 If the samples are not found satisfactory as
	well as in product testing, the firm will be considered for inclusion in the list of 'Vendors for			per specification in RDSO testing, the firm will be intimated to submit fresh samples for
	Developmental order' of 'Vendor Directory', for the			testing as per the procedure described above.
	type of liners developed, as per the criteria laid in			2.7 After the passing of samples both in type
	the ISO document for vendor approval.			tests as well as in product testing, the firm will
	the 130 document for vendor approval.			be considered for inclusion in the list of
				'Vendors for Developmental order' of 'Vendor
				Directory', for the type of liners developed, as
				per the criteria laid in the ISO document for
				vendor approval.
В	SCHEDULE OF TECHNICAL REQUIREMENTS OF FIRMS	FOR MANUFACTURE OF (GLASS FILLED NYLON-66	
1.0	SCOPE:	No Comments	No change proposed	SCOPE:
	The schedule of technical requirements covers the			The schedule of technical requirements covers
	norms for manufacture of Glass Filled Nylon-66 &			the norms for manufacture of Glass Filled
	High viscous Nylon-66 liners to be used in			Nylon-66 & High viscous Nylon-66 liners to be

Para	Existing provision in STR of GFN-66/HVN-66 Liner	Comments	RDSO's Remarks	Modified provision in STR of GFN-66/HVN-66
No.	Existing provision in 51 k of Griv-00/HVIV-00 Lines		KD3O S KellialkS	-
NO.		/Suggestions by		Liner (Modification shown in red)
	name and was the all an Indian Daily as a	approved vendors		used in negree and ways treely on hading
	permanent way track on Indian Railways.			used in permanent way track on Indian
2.0	CENTER AL G. MANNIER CTURE EACH ITIES.	No Community	No. ob one of the second	Railways.
2.0	GENERAL & MANUFACTURE FACILITIES:	No Comments	No change proposed	GENERAL & MANUFACTURE FACILITIES:
	The vendor seeking approval shall comply with all			The vendor seeking approval shall comply with
	the below mentioned requirements.			all the below mentioned requirements.
	2.1 Covered area with adequate space for storage			2.1 Covered area with adequate space for
	of raw material and finished product should be			storage of raw material and finished product
	available which is free from dampness and humidity.			should be available which is free from
	They should have separate damp free secured bond			dampness and humidity. They should have
	room with adequate space for accommodating at			separate damp free secured bond room with
	least 50,000 nos. of such finished product.			adequate space for accommodating at least
	2.2 De-humidifier with digital temperature and			50,000 nos. of such finished product.
	humidity controller & indicator of dew point of			2.2 De-humidifier with digital temperature and
	suitable capacity for pre-dehumidiation of raw			humidity controller & indicator of dew point of
	material should be available. Low Pressure Vacuum			suitable capacity for pre-dehumidiation of raw
	drying equipment can also be used for above			material should be available. Low Pressure
	purpose as an optional equipment.			Vacuum drying equipment can also be used for
	2.3 Horizontal screw type fully automatic PLC based			above purpose as an optional equipment.
	injection-moulding machine should be available for			2.3 Horizontal screw type fully automatic PLC
	moulding, preferably 380 gms shot (granules)			based injection-moulding machine should be
	capacity.			available for moulding, preferably 380 gms shot
	2.4 Temperature of hydraulic oil and moulds should			(granules) capacity.
	be kept controlled by suitable cooling system.			2.4 Temperature of hydraulic oil and moulds
	2.5 Electrical hoist/manual block & tackle for			should be kept controlled by suitable cooling
	mounting & dismounting of moulds should be			system.
	available.			2.5 Electrical hoist/manual block & tackle for
	2.6 Suitably designed dies & moulds for products			mounting & dismounting of moulds should be
	(minimum 2 nos. for each size & drawing no.) should			available.
	be available. Dies/moulds may be of two cavity or			2.6 Suitably designed dies & moulds for
	multicavity, but permission will be given for bulk			products (minimum 2 nos. for each size &
	production as per the cavity number used during			drawing no.) should be available. Dies/moulds
	approval time. It is mandatory to use hot runner			may be of two cavity or multicavity, but
	moulds in case where manufacturer is using moulds			permission will be given for bulk production as
	having more than 4 cavities. However vendors who			per the cavity number used during approval
	desire to use hot runner mould having four cavities			time. It is mandatory to use hot runner moulds
	or less is permitted.			in case where manufacturer is using moulds
	2.7 Annealing tank of suitable capacity with			having more than 4 cavities. However vendors
	thermostat facility and digital temperature indicator			who desire to use hot runner mould having
	should be available.			four cavities or less is permitted.

n STR of GFN-66/HVN-66 hown in red)
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of suitable capacity with and digital temperature vailable. die shall be of hardened ould for tensile test piece. Insignia, drg. no. and cavity anent engraving while the narking may be of injector- or should have all in-house reen printing so that the inished inside the factory. Ols of suitable design in available. Structure for maintenance es & moulds should be cor of adequate capacity
o take up the load of the
f power failure.
and HVN Liners
testing laboratory should
olled for humidity and
ital indicator facility.
nsile testing machine with suitable measuring
provisions in accordance
4 & EN-ISO 527-1:2019 or
elongation percentage and
suit the different testing
types/drg. no. should be
ure for checking cross
also be available.
itus for testing the melting
vity in accordance with IS: EN ISO 1183-1:2019
LIN IDO TIOD-I'SOTO
xist with digital display for
donain reindivite confident 4 eo fuait

Para	Existing provision in STR of GFN-66/HVN-66 Liner	Comments	RDSO's Remarks	Modified provision in STR of GFN-66/HVN-66
No.	Existing provision in 51% of Grid boy from the beautiful	/Suggestions by	RD30 3 Remarks	Liner (Modification shown in red)
1101		approved vendors		amer (mounicularisment)
	air/water should have digital display. 3.4 A single pa digital type chemical balance shall be available having capacity to read upto 4th decimal. 3.5 Digital vernier calipers should be available. 3.6 One Rockwell hardness tester having R-scale facility along with standard test block should be available. 3.7 One muffle furnace of capacity 0-1000°C with temperature controller & indicator should be available along with sufficient numbers of desiccator and crucibles for checking glass filler by ash content (%). 3.8 Stopwatch with least count reading of 0.1 seconds should be available. 3.9 Barometer & hygrometer in the laboratory should be available. 3.10 All measuring gauges of the products should be hardened/or chrome plated (two sets). 3.11 One magnifying glass of min 20x for checking surface finish and internal cavity should be available. 3.12 For checking calibration of tensile / compression testing machine, preferably one number proving ring of min. 5t capacity duly calibrated by NPL should be available with suitable links for in-house calibration.			weighing sample in air/water should have digital display. 3.4 A single pa digital type chemical balance shall be available having capacity to read upto 4th decimal. 3.5 Digital vernier calipers should be available. 3.6 One Rockwell hardness tester having R-scale facility along with standard test block should be available. 3.7 One muffle furnace of capacity 0-1000°C with temperature controller & indicator should be available along with sufficient numbers of desiccator and crucibles for checking glass filler by ash content (%). 3.8 Stopwatch with least count reading of 0.1 seconds should be available. 3.9 Barometer & hygrometer in the laboratory should be available. 3.10 All measuring gauges of the products should be hardened/or chrome plated (two sets). 3.11 One magnifying glass of min 20x for checking surface finish and internal cavity should be available. 3.12 For checking calibration of tensile / compression testing machine, preferably one number proving ring of min. 5t capacity duly calibrated by NPL should be available with suitable links for in-house calibration.
	3.13 3-D laser based equipment for measurement of critical dimensions (i.e. liner thickness, rib thickness and outer dimension) of GFN liners with facility for laser paint marking (green dots for dimensionally OK material and red dot for dimensionally not OK material) with provision for automatic segregation of pass and un-passed material shall be provided. The equipment shall be provided on production line (after annealing) itself	1.0 M/s UNIQUE PLASTIC INDUSTRIES, Kolkata: Request to exclude this – reply 3.13 We already have check and balances to measure and approve dimensional stability	No change proposed This is an existing clause for GFN liner. This clause has already been implemented. Hence the suggestion of the	3.13 3-D laser based equipment for measurement of critical dimensions (i.e. liner thickness, rib thickness and outer dimension) of GFN liners with facility for laser paint marking (green dots for dimensionally OK material and red dot for dimensionally not OK material) with provision for automatic segregation of pass and un-passed material shall be provided. The equipment shall be provided on production line

Para	Existing provision in STR of GFN-66/HVN-66 Liner	Comments	RDSO's Remarks	Modified provision in STR of GFN-66/HVN-66
No.	Existing provision in STR of Grid Go/11414-00 Ellief	/Suggestions by	11233 3 Hemania	Liner (Modification shown in red)
140.		approved vendors		Ellier (Woullication Shown in Tea)
		of the various liners,	firm is not accepted.	(after annealing) itself
		this requirement is	iiiiii is not accepted.	(arter armeaning) itself
		not only unnecessary,		
		it is also an added cost		
		to the manufacturing		
		process in terms of		
		additional manpower,		
		capital goods infusion,		
		and time taking		
		process, and it will		
		cause more confusion		
		and hinderance in the		
		manufacturing		
		process. In addition		
		,since there is no clear		
		mention of critical		
		dimensions to be		
		checked, we are		
		assuming it would be		
		as per the gauges (G1		
		to G8), which in turn		
		means this product		
		will have to be		
		checked from all		
		angles, for a complete		
		and through check		
		over of all critical		
		dimensions. For which		
		the product will have		
		to be turned multiple		
		times to cover all		
		critical angles. It does		
		not provide any		
		quality assurance as		
		this can be easily		
		bypassed during		
		manufacturing by		
		vendors. Also In turn		
		increasing the price of		

Para	Existing provision in STR of GFN-66/HVN-66 Liner	Comments	RDSO's Remarks	CT/EF/Policy/Global EOI/HVN dated 00.07.2025 Modified provision in STR of GFN-66/HVN-66
No.	Existing provision in STR of Griv-00/ TVIV-00 Liner	/Suggestions by	VD2O 2 VelligLK2	Liner (Modification shown in red)
NO.		approved vendors		Liner (Mounication snown in red)
		the final product not		
		adding any true value		
		to the final output of		
		process. Hence we		
		recommend to not include this as a		
		mandatory		
		requirement, if at all		
		this could be an		
		optional requirement		
		to have.		
		2. M/s Sheth & Co. ,		
		Mumbai:		
		RDSO may please		
		suggest us a few		
		vendors who makes		
		such equipment to		
		discuss the reliability		
		of the testing. We are		
		currently using RDSO		
		approved gauges for		
		dimensional checks.		
		As far as our general		
		engineering		
		understating, it may		
		be difficulty to check		
		dimensions by a laser		
		as liners geometry has		
		different slopes. It		
		may not be accurate		
		to measure given		
		different slopes on 2		
		different sides. For		
		example, in case of RT		
		3706, we have slope		
		of 1 in 6 on one side		
		and 1 in 14 slope on		
		the other side of the		

Para	Existing provision in STR of GFN-66/HVN-66 Liner	Comments	RDSO's Remarks	Modified provision in STR of GFN-66/HVN-66
No.		/Suggestions by		Liner (Modification shown in red)
		approved vendors		
		part. Hence these		
		sides are not parallel		
		and difficult to		
		measure with the help		
		of a laser. Also this is		
		an expensive		
		equipment and we		
		feel that it doesn't		
		help in bulk supplies.		
		Also as the liners are		
		made in molds, it		
		generally are well		
		within the tolerance		
		and very well checked		
		by gauges.		
		We may call for a		
		discussion on this		
		topic before we make		
		it mandatory for all		
		suppliers.		
		3. M/s Adinath		
		Industries, New Delhi:		
		4. M/s Veera		
		Industries , Haryana :		
		Para 3.13 RDSO already		
		RDSO already implemented		
		dimension gauges for		
		checking of liner		
		dimension since its		
		organization This is		
		very convenient,		
		reliable & proven		
		method to conform		
		dimensions criteria of		
		liners.		
		Hence , 3-d laser		
		, 5 %		

Dave	Evicting provision in STD of CEN CC/UVALCC Lines	Commonto		Medified provision in STR of CEN 66 (UVA) 66
Para	Existing provision in STR of GFN-66/HVN-66 Liner	Comments	RDSO's Remarks	Modified provision in STR of GFN-66/HVN-66
No.		/Suggestions by		Liner (Modification shown in red)
		approved vendors based equipment is no		
		necessarily required,		
		which only add extra		
		cost but without any		
		real purpose.		
		Note: The 3-D laser		
		based equipment for		
		measurement of		
		critical dimension is		
		also not the part of		
		specification.		
		Hence not required		
	B. Additional testing facilities for HVN Liners	No Comments	Only, apparatus for	B. Additional testing facilities for HVN Liners
	3.14 One Ubbelohde type Viscometer as per ISO 307, complying with the requirements of size no. 2	Received	conducting Impact test as per Appendix-	3.14 One Ubbelohde type Viscometer as per ISO 307, complying with the requirements of
	of ISO 3105, for measuring viscosity number with		XII has been added	size no. 2 of ISO 3105, for measuring viscosity
	the use of sulphuric acid should be available. 3.15		for HVN liner.	number, with the use of sulphuric acid should
	Apparatus for measuring surface roughness in 'Ra'			be available 96% sulfuric acid shall be used.
	should be available.			3.15 Apparatus for measuring surface
	3.16 Colorimeter or spectrophotometer should be			roughness in 'Ra' should be available.
	available to measure RAL.			3.16 Colorimeter or spectrophotometer should
				be available to measure RAL.
				3.17 Apparatus/fixture for measurement of
				Flexural Strength test should be available.
				3.18 Necessary apparatus for testing the
				melting point as per ISO 11357-3-2018
				3.19 Necessary apparatus for conducting
				Impact test as per Appendix-XII should be
4	OHALITY CONTROL DECLUDENATIVE.	No Commonts	No change property	available.
4	QUALITY CONTROL REQUIREMENTS: 4.1 There should be a system to ensure the	No Comments	No change proposed	QUALITY CONTROL REQUIREMENTS: 4.1 There should be a system to ensure the
	traceability of the product from raw material stage			traceability of the product from raw material
	to finished product stage. This system should also			stage to finished product stage. This system
	facilitate to identify the raw material composition			should also facilitate to identify the raw
	from the finish product stage.			material composition from the finish product
	4.2 Ensure that the system of First-in First-out is			stage.
	followed for raw material and the intermediate			4.2 Ensure that the system of First-in First-out is

Para	Existing provision in STR of GFN-66/HVN-66 Liner	Comments	RDSO's Remarks	Modified provision in STR of GFN-66/HVN-66
No.	EXISTING PROVISION IN STREET OF GLIST-00/11414-00 EINE	/Suggestions by	ND50 3 Nellialk3	Liner (Modification shown in red)
140.		approved vendors		Ellier (Wouldedion Shown in Yea)
	stage products.			followed for raw material and the intermediate
	4.3 Ensure that there is a Quality Assurance for the			stage products.
	product detailing various aspects • Organizational			4.3 Ensure that there is a Quality Assurance for
	Chart • Flow process chart • Stage inspection details			the product detailing various aspects •
	Non conformities in various parameters & control			Organizational Chart • Flow process chart •
	over them The QAP shall be available as per the			Stage inspection details • Non conformities in
	requirement details in ISO documents issued by			various parameters & control over them The
	RDSO/Lucknow.			QAP shall be available as per the requirement
	4.4 There should be at least one plastic technologist			details in ISO documents issued by
	having a minimum bachelor's degree in relevant			RDSO/Lucknow.
	field & 5 years experiences or a person with diploma			4.4 There should be at least one plastic
	in relevant field with 12 years experience. He should			technologist having a minimum bachelor's
	be free from day-to-day production, testing &			degree in relevant field & 5 years experiences
	quality control responsibility. He should be mainly			or a person with diploma in relevant field with
	responsible for development and regular production			12 years' experience. He should be free from
	of the product, analysis of products, control over			day-to-day production, testing & quality control
	raw material, corrective action in case of difficulties			responsibility. He should be mainly responsible
	in achieving the parameters.			for development and regular production of the
	4.5 Ensure that the in-charge of the quality control			product, analysis of products, control over raw
	section is having a qualification of minimum			material, corrective action in case of difficulties
	bachelor's degree in the relevant field and have			in achieving the parameters.
	minimum five years experience or a diploma holder			4.5 Ensure that the in-charge of the quality
	with minimum 8 years experience. He should be			control section is having a qualification of
	actively involved in day-to-day activities of quality			minimum bachelor's degree in the relevant
	control / stage inspection / compliance of QAP etc.			field and have minimum five years experience
	4.6 The firm should have acquired ISO: 9000			or a diploma holder with minimum 8 years
	certification and the product for which an approval			experience. He should be actively involved in
	is sought should be broadly covered in the scope of			day-to-day activities of quality control / stage
	the certification for manufacture and supply.			inspection / compliance of QAP etc.
	4.7 The quality manual of the firm for ISO: 9000			4.6 The firm should have acquired ISO: 9000
	should clearly indicate at any stage the control over			certification and the product for which an
	manufacturing and testing of the said railway			approval is sought should be broadly covered in
	product.			the scope of the certification for manufacture
	4.8 Ensure that proper analysis is being done on			and supply.
	monthly basis to study the rejection at various			4.7 The quality manual of the firm for ISO: 9000
	internal stages and it is documented.			should clearly indicate at any stage the control
	4.9 Ensure that all the relevant drawings,			over manufacturing and testing of the said
	specifications, IS, BS standards, ASTM, ISO and test			railway product.
	methods are available with the firm.			4.8 Ensure that proper analysis is being done on

Dara	Existing provision in STR of GFN-66/HVN-66 Liner	Comments	RDSO's Remarks	Modified provision in STR of GFN-66/HVN-66
Para No.	LAISTING PROVISION IN STA OF GRIV-00/ INVIV-00 LINES	/Suggestions by	VD2O 2 VEIIIGLK2	Liner (Modification shown in red)
NO.		approved vendors		Liner (Woullcation shown in red)
	4.10 It is to be ensured that the dies and moulds are	approved vendors		monthly basis to study the rejection at various
	checked for accuracy for various critical predefined			internal stages and it is documented.
	dimensions at least on weekly basis or after			4.9 Ensure that all the relevant drawings,
	production of 50,000 pieces whichever is earlier and			specifications, IS, BS standards, ASTM, ISO and
	observations are recorded. The wear and tear of			test methods are available with the firm.
	nozzle and barrels of injection moulding machine			4.10 It is to be ensured that the dies and
	should also checked at least once in month or after			moulds are checked for accuracy for various
	50,000 nos. production (whichever is earlier) &			critical predefined dimensions at least on
	observation recorded & shall be rectified if			weekly basis or after production of 50,000
	warranted by such records. 4.11 Training need			pieces whichever is earlier and observations are
	should be identified for all concerned officials &			recorded. The wear and tear of nozzle and
	regular training shall be organized & imparted on			barrels of injection moulding machine should
	maintenance of machine, quality assurance, safety			also checked at least once in month or after
	parameters etc. & records maintained.			50,000 nos. production (whichever is earlier) &
				observation recorded & shall be rectified if
				warranted by such records. 4.11 Training need
				should be identified for all concerned officials &
				regular training shall be organized & imparted
				on maintenance of machine, quality assurance,
				safety parameters etc. & records maintained.
C	PROFORMA FOR TECHNICAL CAPABILITY	No Comments	No change proposed	PROFORMA FOR TECHNICAL CAPABILITY
	ASSESSMENT FOR MANUFACTURE AND SUPPLY OF			ASSESSMENT FOR MANUFACTURE AND
	GFN/HVN LINERS DRAWING NO			SUPPLY OF GFN/HVN LINERS DRAWING
	(To be filled in duplicate. Attach extra sheets			NO
	wherever necessary)			(To be filled in duplicate. Attach extra sheets
	1.0 SECTION-I : GENERAL INFORMATION (For			wherever necessary)
	record purpose only)			1.0 SECTION-I : GENERAL INFORMATION (For
	1.1 Name of the firm:			record purpose only)
	1.2 Address:			1.1 Name of the firm:
	(a) Head Office			1.2 Address:
	(b) Works			(a) Head Office
	(c) Location of worksKm. From			(b) Works
	Railway Station.			(c) Location of worksKm. From
	1.3 Factory Area (Sqm):			Railway Station.
	a) Covered			1.3 Factory Area (Sqm):
	b) Uncovered			a) Covered
	c) Is the factory site in your name or on rental			b) Uncovered
	basis? Support with documents.			c) Is the factory site in your name or on rental
	d) Telephone No. / Mobile No.			basis? Support with documents.

Para	Existing provision in STR of GFN-66/HVN-66 Liner	Comments	RDSO's Remarks	Modified provision in STR of GFN-66/HVN-66
	Existing provision in 51k of Griv-00/HVIV-00 Lines		RDSO 5 Reiliarks	-
No.		/Suggestions by approved vendors		Liner (Modification shown in red)
	(i) Head Office	approved veridors		d) Telephone No. / Mobile No.
	(ii) Works			(i) Head Office
	• •			1 ' '
	e) Telegraphic / Telex / Fax / E-mail ID address			(ii) Works
	(i) Head Office			e) Telegraphic / Telex / Fax / E-mail ID address
	(ii) Works			(i) Head Office
	1.4 SSI/NSIC Registration No. (Enclose Copy):			(ii) Works
	1.5 Power availability (KVA)			1.4 SSI/NSIC Registration No. (Enclose Copy):
	(a) General allotted capacity			1.5 Power availability (KVA)
	(b) Standby generator and its capacity, if available.			(a) General allotted capacity
	Diesel Generator of adequate capacity should be			(b) Standby generator and its capacity, if
	installed to take up the load of the entire plant in			available. Diesel Generator of adequate
	case of power failure			capacity should be installed to take up the load
	(c) Name the party / person in whose name the			of the entire plant in case of power failure
	power is sanctioned and your agreement with the			(c) Name the party / person in whose name the
	party/person (Support with documents)			power is sanctioned and your agreement with
	1.6 Name of any other units located in the above			the party/person (Support with documents)
	premises.			1.6 Name of any other units located in the
	(As indicated in 1.3)			above premises.
	1.7 Man Power Management:			(As indicated in 1.3)
	(a) Managerial staff			1.7 Man Power Management:
	(b) Shop floor Engineers / Supervisors (Their nos.			(a) Managerial staff
	with their qualifications and service experience) (c)			(b) Shop floor Engineers / Supervisors (Their
	Laboratory In charge whether full time or part time.			nos. with their qualifications and service
	Indicate their names, qualifications and service			experience) (c) Laboratory In charge whether
	experience			full time or part time. Indicate their names,
	(d) Inspection & quality control staff, (give their			qualifications and service experience
	name, qualifications and service experience).			(d) Inspection & quality control staff, (give their
	(e) Workmen			name, qualifications and service experience).
	(i) Highly skilled			(e) Workmen
	(ii) Semi-skilled			(i) Highly skilled
	(iii) Un-skilled			(ii) Semi-skilled
				(iii) Un-skilled
	2.0 SECTION-II: TECHNICAL INFORMATION	No Comments	No change proposed	2.0 SECTION-II: TECHNICAL INFORMATION
	(Availability of Plant & Machinery as indicated by			(Availability of Plant & Machinery as indicated
	manufacturer should be physically verified by the			by manufacturer should be physically verified
	assessment official)			by the assessment official)
	2.1 Infrastructure for production and production			2.1 Infrastructure for production and
	capability			production capability
	2.1.1 Automatic screw type injection moulding			2.1.1 Automatic screw type injection moulding

Para	Existing provision in STR of GFN-66/HVN-66 Liner	Comments	RDSO's Remarks	Modified provision in STR of GFN-66/HVN-66
No.	Existing provision in 51K of Griv-00/11VW-00 Emer	/Suggestions by	RD30 3 Remarks	Liner (Modification shown in red)
140.		approved vendors		Liner (Would add shown in rea)
	machines: Indicate their:			machines: Indicate their:
	a) Their numbers			a) Their numbers
	b) Shot capacity of each machine			b) Shot capacity of each machine
	c) Make of the machines			c) Make of the machines
	d) Age of each machine			d) Age of each machine
	e) Automatic temperature control Device range			e) Automatic temperature control Device
	Note: Preferably Horizontal screw type fully			range Note: Preferably Horizontal screw type
	automatic PLC based injection-moulding machine			fully automatic PLC based injection-moulding
	should be available for moulding of min. 380gms			machine should be available for moulding of
	shot (granuls) capacity.			min. 380gms shot (granuls) capacity.
	2.1.2 De-humidifier with digital temperature,			2.1.2 De-humidifier with digital temperature,
	indicates:			indicates:
	a) Number capacity			a) Number capacity
	b) Make			b) Make
	c) Age			c) Age
	d) Automatic temperature control device at 80-85°C			d) Automatic temperature control device at 80-
	range			85°C range
	Note: De-humidifier with digital temperature and			Note: De-humidifier with digital temperature
	humidity controller & indicator of suitable capacity			and humidity controller & indicator of suitable
	for pre-dehumidiation of raw material should be			capacity for pre-dehumidiation of raw material
	available. The unit shall be of sealed unit type so			should be available. The unit shall be of sealed
	that granules after preheating is charged into the			unit type so that granules after preheating is
	injection machine automatically by suction awarding			charged into the injection machine
	and contact with ambient air.			automatically by suction awarding and contact
	2.1.3 Electrical (Thermoplastically controlled			with ambient air.
	annealing baths capable of heating water upto			2.1.3 Electrical (Thermoplastically controlled
	100°C)			annealing baths capable of heating water upto
	(a) Nos.			100°C)
	(b) Size			(a) Nos.
	(c) Availability of thermostat facility and digital			(b) Size
	temperature indicator			(c) Availability of thermostat facility and digital
	2.1.4 Source of Raw material			temperature indicator
	2.1.5 Arrangement for storing of Raw material			2.1.4 Source of Raw material
	Note: Covered area with adequate space for			2.1.5 Arrangement for storing of Raw material
	storage of Raw material and finished product should			Note: Covered area with adequate space for
	be available which is free from dampness and			storage of Raw material and finished product
	humidity.			should be available which is free from
	2.1.6 Tool room cum die making facilities:			dampness and humidity.
	a) De-flashing tools of suitable design in adequate			2.1.6 Tool room cum die making facilities:

Davis	era Existing provision in STR of GFN-66/HVN-66 Liner Comments			Camananta		Modified provision in STR of GFN-66/HVN-66				
Para	Existin	g provision	in STR of GFN-66/	HVN-66 Liner	Comments	RDSO's Remarks		=		
No.					/Suggestions by		Liner	(Modificati	on shown in red)
					approved vendors					
	nos. to be available								tools of suitab	le design in
	b) Minimum infrastructure for maintenance and			intenance and			adequ	iate nos. to	be available	
	polishi	ng of dies 8	& moulds should	be available in-			b) M	inimum in	frastructure for	maintenance
	house						and _I	oolishing o	f dies & mould	ds should be
	2.1.7	Any other fa	acilities which the	firm considers			availa	ble in-hous	е	
	releva	nt					2.1.7	Any othe	r facilities wh	ich the firm
	2.1.8 R	ated produc	tion capacity per r	month			consid	ders relevar	it	
	2.1.9	Describe ar	rangement for s	toring finished			2.1.8	Rated produ	uction capacity p	er month
	produc	ct, batch wise	e to avoid mixing:				2.1.9	Describe ar	rangement for st	oring finished
							produ	ict, batch w	ise to avoid mixir	ng:
	Note:	Covered area	a with adequate sp	pace for storage			'			
	1		and finished prod	_			Note:	Covered a	rea with adequ	ate space for
	1		ree from dampnes						naterial and fin	•
	They s	hould have s	separate damp fre	e secured bond			should	d be ava	ilable which is	s free from
	_		ate space for acc				damp	ness and	humidity. They	should have
	1	-	such finished pro	_			separ	ate damp f	ree secured boi	nd room with
	1		um quality control					-	for accommoda	
	2.2.1 L	aboratory ro	oom	•			50,00	Onos. of suc	ch finished produ	ct.
	(i) Size	of room.					2.2 Te	est facilities	cum quality cont	rol steps.
	(ii) Aiı	r conditioni	ng arrangement	for controlling			1	Laboratory		•
	I		umidity in the roo				(i) Siz	e of room.		
							(ii) Air	conditioni	ng arrangement	for controlling
							1		humidity in the	
	2.2.2 L	aboratory e	quipment/ test fa	cilities indicate	No Comments	No change proposed	2.2.2	Laborator	y equipment/	test facilities
			e following equ				indica		bility of th	
		-	nents should be in	•					est facilities. Al	•
	SN	TEST		Indicate			1	d be in worl		. equipinicino
	JIN	1631	Requirement	availability			I -			
	22	Tost	Test method as	avaiiabiiity			SN	TEST	Requirement	Indicate
	2.2.	Test						<u> </u>		availability
	2.1	facilities	per ASTM D-				2.2	Test	Test method	
		for	638-14,				.2.	facilities	as per ASTM	
		tensile	Computerized				1	for	D-638-14,	
		strength	Tensile testing					tensile	Computerize	
			machine					strength	d Tensile	
			i) Type						testing	
			ii) Make						machine	
			iii) Age						i) Type	
			iv) Capacity:						ii) Make	
			2.5M/T(min.)						iii) Age	

-		• • •	CTD COTH COUNTY COLI					Modified provision in STR of GFN-66/HVN-66		
Para	Existin	g provision	in STR of GFN-66/HVN-66 Liner	Comments	RDSO's Remarks		-			
No.				/Suggestions by		Liner	(Modificati	ion shown in red)		
				approved vendors						
			v) Operating speed 1.5mm/min, 5.0mm/min,					iv) Capacity: 2.5M/T(min.) v) Operating speed		
			50mm/min					1.5mm/min,		
	2.2.	Test	Test method as	-				5.0mm/min,		
	2.2	facilities	per IS:1998-					50mm/min		
		for cross	1962			2.2	Test	Test method		
		breaking	1302			.2.	facilities	as per		
		strength				2	for cross	IS:1998-1962		
	2.2.	Testing	Test Method	-		-	breakin	13.1330 1302		
	2.3	facility	as per IS:5762-				g			
	=:0	for	1970 or				strength			
		Melting	capillary			2.2	i)	Test Method		
		point test	method			.2.	Testing	as per		
			apparatus			3	facility	IS:5762-1970		
	2.2.	Specific	Test method as				for	or capillary		
	2.4	gravity	per BS EN ISO				Melting	method		
		test	1183-1:2019				point	apparatus		
			i) Single pan				test (For			
			chemical				GFN)	Test Method		
			balance				ii)	as per ISO		
			(Accuracy:				Testing	11357- 3-		
			0.1mg)				facility	2018 (DSC		
			ii) Beakers etc.				for	method)		
	2.2.	Hardness	Test method as				Melting			
	2.5	test	per ASTM-D-				point			
			785-				test (For			
			08(Hardness				HVN)			
			tester			2.2	Specific	Test method		
		F 11:	Rockwell)			.2.	gravity	as per BS EN		
	2.2.	Facility	i) Single pan			4	test	ISO 1183- 1:2019		
	2.6	for check						i) Single pan		
		on glass	balance					chemical		
		filler by	(accuracy:					balance		
		ash (%)	0.1mg) ii) Muffle					(Accuracy:		
			ii) Muffle furnace, temp.					0.1mg)		
			1000°C iii)					ii) Beakers		
			1000 C III)					ויון הבמעבוס		

Dara	Existing provision in STR of GFN-66/HVN-66 Liner			Comments		Modified provision in STR of GFN-66/HVN-66				
Para No.	EXISTIN	g brovision i	11 3 I K UI GEN-00/	Liner	/Suggestions by	RDSO's Remarks		=	on in STR of GFN on shown in red	
NO.					approved vendors		Linei	(iviouilicati	on snown in rea	
			Desiccators iv)		1.				etc.	
			Crucibles				2.2	Hardnes	Test method	
	2.2.	Facility	Compression				.2.	s test	as per ASTM-	
	2.7	for	testing				5		D-785-	
		Crossbre	machine &						08(Hardness	
		aking	arrangement						tester	
		load test	as per IRST for						Rockwell)	
		for GFN	liners.(Attach				2.2	Facility	i) Single pan	
		liners)	drawing of test				.2.	for	chemical	
			fixture and				6	check	balance	
			loading					on glass	(accuracy:	
			arrangement					filler by	0.1mg)	
	2.2.	Facility	-Do-					ash (%)	ii) Muffle	
	2.8	for							furnace,	
		compress							temp. 1000°C	
		ive load							iii)	
		for GFN							Desiccators	
		liners							iv) Crucibles	
	2.2.	Facility	One				2.2	Facility	Compression	
	2.9	for	Ubbelohde				.2.	for	testing	
		measure	Viscometer as				7	Crossbr	machine &	
		ment of Viscosity	per ISO 307, of size no. 2					eaking load	arrangement as per IRST	
		number	comply					test for	for liners.	
		of HVN	Comply					GFN	(Attach	
	2.2.	Facility	Apparatus for					liners	drawing of	
	2.1	for	measuring					and	test fixture	
	0	checking	surface					cross	and loading	
		of	roughness in					bending	arrangement	
		surface	Ra					strength)	
		of HVN						for HVN	,	
		Liner						liner)		
	2.2.	Facility	Colorimeter or				2.2	Facility	-Do-	
	2.1	for	spectrophoto				.2.	for		
	1	checking	meter should				8	compre		
		color	be available to					ssive		
		code of	measure RAL					load for		
		HVN						GFN		
		Liner						liners		

Dovo	Ev:-4:-	a provision:	n CTD of CEN. CC/LIVAL	ee Lines	Comments	RDSO's Remarks	Modified provision in STR of GFN-66/HVN-66			
Para No.	Existing provision in STR of GFN-66/HVN-66 Liner			/Suggestions by	RDSO'S Remarks		-	on in STR of GFN- ion shown in red)		
NO.					approved vendors		Linei	(iviouilicati	on snown in reaj	
	2.2.	Gauge	Minimum two	1	approved veridors		2.2	Facility	One	
	2.2.	for					.2.	for	Ubbelohde	
	2.1	dimensio	sets as per RDSO drawing				9	measur	Viscometer	
	2	nal check	KD3O drawing					ement	as per ISO	
	2.2.	Fixture	As per					of	307, of size	
	2.2.	for	As per Annexure-X of					Viscosit	no. 2 comply	
	3	Flexural	IRS T-44					y	110. 2 comply	
	•	Strength	11/3 1-44					number		
		Test						of HVN		
	2.2.	In house	Min. 5t				2.2	Facility	Apparatus for	
	2.1	facility	capacity				.2.	for	measuring	
	4	for	tension/				10	checkin	surface	
		checking	compression					g of	roughness in	
		calibratio	proving ring					surface	Ra	
		n of	calibrated by					of HVN		
		tensile	NABL or other					Liner		
		testing	Govt.				2.2	Facility	Colorimeter	
		machine.	approved test				.2.	for	or	
			house with				11	checkin	spectrophoto	
			suitable fixing					g color	meter should	
			links					code of	be available	
								HVN	to measure	
								Liner	RAL	
							2.2	Gauge	Minimum	
							.2.	for	two sets as	
							12	dimensi	per RDSO	
								onal	drawing	
								check		
							2.2	i)	As per	
							.2.	Fixture	Annexure-X	
							13	for	of IRS T-44	
								Flexural		
								Strength		
								Test	As per	
								ii)	Annexure-XII	
								Fixture	& XII A of IRS	
								for	T-44	
								Impact		
								test of		

Desa	Para Existing provision in STR of GFN-66/HVN-66 Liner Comments RDSO's Remarks Modified provision in STR of					
Para	Existing provision in STR of GFN-66/HVN-66 Liner		RDSO'S Remarks	Modified provision in STR of GFN-66/HVN-66		
No.		/Suggestions by		Liner (Modification shown in red)		
		approved vendors				
				HVN		
				2.2 In house Min. 5t		
				.2. facility capacity		
				14 for tension/		
				checkin compression		
				g proving ring		
				calibrati calibrated by		
				on of NABL or		
				tensile other Govt.		
				testing approved		
				machine test house		
				. with suitable		
				fixing links		
	2.2.3 Facilities for measuring through 3D laser	No Comments	No Change proposed	2.2.3 Facilities for measuring through 3D laser		
	2.2.4 Periodicity of checking calibration of			2.2.4 Periodicity of checking calibration of		
	equipment and agency deployed for checking			equipment and agency deployed for checking		
	calibration:			calibration:		
	2.2.5 Do you undertake the raw material			2.2.5 Do you undertake the raw material		
	identification tests before its use? Or depend upon			identification tests before its use? Or depend		
	the supplier's certificate			upon the supplier's certificate		
	2.2.6 Staff strength:			2.2.6 Staff strength:		
	a. Production staff			a. Production staff		
	b. Quality assurance: (Production stage, Lab Testing)			b. Quality assurance: (Production stage, Lab		
	i) Staff for quality monitoring in production stage ii)			Testing)		
	Staff for laboratory testing			i) Staff for quality monitoring in production		
	2.2.7 Do you possess the relevant standards (BS,			stage ii) Staff for laboratory testing		
	ASTM, BIS / IS) as referred in IRS Specification for			2.2.7 Do you possess the relevant standards		
	GFN Liner. Please list these as per availability.			(BS, ASTM, BIS / IS) as referred in IRS		
	2.2.8 Describe (in a separate sheet) the various			Specification for GFN/HVN Liner. Please list		
	steps for stage inspections for quality monitoring			these as per availability. 2.2.8 Describe (in a		
	and control during production. The quality			separate sheet) the various steps for stage		
	assurance programme (including the proforma for			inspections for quality monitoring and control		
	maintenance of records) proposed to be adopted			during production. The quality assurance		
	for the product, should be submitted.			programme (including the proforma for		
	ioi the product, should be submitted.			maintenance of records) proposed to be		
				, , ,		
2.0	CECTION III. EVEREIGNEE /For managed accounts	No Commonts	No shange was as!	adopted for the product, should be submitted.		
3.0	SECTION-III: EXPERIENCE (For records purpose	No Comments	No change proposed	SECTION-III: EXPERIENCE (For records purpose		
	only)			only)		
	3.1 Indicate various types of items being			3.1 Indicate various types of items being		

Para	Existing provision in STR of GFN-66/HVN-66 Liner	Comments	RDSO's Remarks	Modified provision in STR of GFN-66/HVN-66
No.	LAISTING PROVISION IN STA OF GENERAL PROVINCE LINES	/Suggestions by	VD3O 2 VEIIIGIK2	Liner (Modification shown in red)
140.		approved vendors		Liner (Would attor shown in rea)
	manufactured in your works and the name of the agency / client for whom it is being manufactured. 3.2 Indicate important customers for the last three years both Govt. and non Govt. if any, for information furnished in your reply to 3.1. 3.3 Indicate details (contract reference, item and quantity manufactured and supplies of important orders executed in the past three years for the following. Indicate the inspecting agency for each (i) Govt. Department, Central, State and Govt. undertaking other than Railway (ii) Directly to the Railways. (iii) Outside important firms. 3.4 Please specify current orders in hand on your firm (Contract reference, client, item, quantity under manufacture and supply) 3.5 Whether firm is already registered with RDSO for other P. Way items. If so, name the item supported by documents. 3.6 Whether firm is already registered with RDSO for items other than P. way items. If so, name the item with which you are registered, supported by documents. 3.7 Indicate annual turnover of your company	approved vendors		manufactured in your works and the name of the agency / client for whom it is being manufactured. 3.2 Indicate important customers for the last three years both Govt. and non Govt. if any, for information furnished in your reply to 3.1. 3.3 Indicate details (contract reference, item and quantity manufactured and supplies of important orders executed in the past three years for the following. Indicate the inspecting agency for each (i) Govt. Department, Central, State and Govt. undertaking other than Railway (ii) Directly to the Railways. (iii) Outside important firms. 3.4 Please specify current orders in hand on your firm (Contract reference, client, item, quantity under manufacture and supply) 3.5 Whether firm is already registered with RDSO for other P. Way items. If so, name the item supported by documents. 3.6 Whether firm is already registered with RDSO for items other than P. way items. If so, name the item with which you are registered, supported by documents. 3.7 Indicate annual turnover of your company
4	DECLARATION: 4.1 We do hereby declare that the above particulars are correct and no discrepancy shall be found during actual investigation before and during execution of order on our firm. 4.2 Any change in the plant and machinery and change of place of office and of works site shall be brought to the notice of RDSO for clearance and approval. 4.3 We also declare that our concern has not been black-listed by Railways / Railway Board / RDSO for business with the Railways. 4.4 We hereby undertake that all our equipments	No Comments	No change proposed	DECLARATION: 4.1 We do hereby declare that the above particulars are correct and no discrepancy shall be found during actual investigation before and during execution of order on our firm. 4.2 Any change in the plant and machinery and change of place of office and of works site shall be brought to the notice of RDSO for clearance and approval. 4.3 We also declare that our concern has not been black-listed by Railways / Railway Board / RDSO for business with the Railways. 4.4 We hereby undertake that all our

Annexure-I to Letter no. CT/EF/Policy/Global EOI/HVN dated 00.07.2025

Para	Existing provision in STR of GFN-66/HVN-66 Liner	Comments	RDSO's Remarks	Modified provision in STR of GFN-66/HVN-66
No.		/Suggestions by approved vendors		Liner (Modification shown in red)
	for manufacturing and testing as listed above shall be maintained in good working order at all times. 4.5 We hereby declare that the contents and the instructions of latest "Apex ISO document for Vendor Approval" issued by RDSO have been read and understood by us and our firm shall agree to abide by all the stipulations laid therein. Signature of Authorized Signatory (Name and Designation) Place: Date: Stamp of the firm			equipments for manufacturing and testing as listed above shall be maintained in good working order at all times. 4.5 We hereby declare that the contents and the instructions of latest "Apex ISO document for Vendor Approval" issued by RDSO have been read and understood by us and our firm shall agree to abide by all the stipulations laid therein. Signature of Authorized Signatory (Name and Designation) Place: Date: Stamp of the firm