

Process Inspection Order for Rail Pads - Activity Chart					
Specification: IRS T-55-2025					
Sl. No.	Activity	Numbers to be checked	Check Points	Time consumed in inspection activity (in mins)	Total Time for inspection activity (in mins)
Process Inspection Activities - Shift Wise					
1	Raw Material	Each Invoice	Verification of Invoice with valid Rubber Board Licence, Register to be maintained properly Verification of Invoice of carbon blacks as per ASTM D 1785 Verification of Invoice of Silica (particle size < 20 microns) Verification of Invoice of Nylon Cord of style 1680/2 with minimum 3200 Denier. Verification of Invoice of other ingredients like Anti Ozonant, Anti Oxidant etc. In case of NCRGRSP, all the tests specified in para 5.3.1 of IRS T-55 should be performed once for every lot of Nylon Cord.	60 (At the start of production and whenever, additional raw material is received during production)	60
2	Raw Materials weighing	Assumed 5 times per shift. Each weighing activity to be witnessed.	Engineer has to be ensured that Accepted Raw Materials only to be used for Batch. Percentage of Raw Rubber shall not be less than 50% by weight	5	25
3	Mixing at Kneader & Mixing Mill	Assumed 5 times per shift. Each mixing activity to be witnessed.	Mixing Time & Temperature should be maintained as per approved QAP Proper water circulation should be maintained Ensuring that dust collector is ON while Batch Mixing is in progress.	15	75
4	Sheeting / Sizing	Assumed 5 times per shift. Each sheeting / sizing activity to be witnessed.	Proper sheeting of 'Preform' as per drawing & specification must be ensured	10	50
5	Rheometer Test	01 test per batch	Proper time and temperature for vulcanization of the each batch should be ensured.	10	50
6	Verification of Mould dimensions and surface	Once before start of shift	Dimensional accuracy and freedom from defects should be ensured.	15 (At the start of each shift)	15
7	Moulding at Hydraulic Press	Once every hour	Curing Time, Curing Temperature & Curing Pressure shall be monitored as per approved QAP	5	40
8	Finishing	Visual inspection of 3 rail pads per hour	Ensure that the Rail pads have clean cut sides and smooth surface free from defects.	5	40
Total					355
01 Inspecting Engineer per shift (08 Hrs) can inspect upto 02 adjacent production lines (implying upto 2 kneaders, 4 mills and 6 hydraulic press)					
Notes:					
1	The above process inspection is over and above the existing final inspection of finished product.				
2	01 Engineer per shift (8 hours) for up to 02 adjacent production lines will be required (One production line signifies one array of common machineries used for production, from raw material to finished product). In case of more than two production lines, additional inspecting engineers will be deployed for every two additional production line or part thereof.				
3	The inspecting official should carry out above checks and maintain complete record. The inspecting official will also verify the records of consumption of raw material commensurate with quantity manufactured.				
4	The inspecting official should possess Degree / Diploma in any Engineering stream and should have minimum 2 years' experience in any manufacturing unit.				
6	The inspecting official should be Issued a Competency Certificate by Competent Authority of RITES after testing his knowledge of specification, STR, QAP etc. The certificate shall be valid for a period of one year from the date of Issue.				
7	Minimum production for each variant per shift per production line shall be: (i) 6.2 mm thick CGRSP - 4500 nos. (ii) 10.0 mm thick CGRSP - 1850 nos (iii) 6 mm NCRGRSP - 2000 nos (iv) 10 mm NCRGRSP - 1200 nos				

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