

TÜRASAS Regional Directorate of Eskişehir	TECHNICAL SPECIFICATION	Document No	250.421			
		Revision	D	E	F	G
		Page	1/6			

TS 250.421

TECHNICAL SPECIFICATION FOR SUPPLYING BUFFERS WITH ELASTOMERS

Manager of Incoming Control Division	Şükrü Baha BAYDIR		
Manager of Wagon Division	Özden BALKAN		
Manager of Wagon Factory	Murat GÖRÜR		
Prepared by	Ahmet SÖNMEZ	Halis SAĞIR	
			
Prepared on			

TÜRASAS Regional Directorate of Eskişehir	TECHNICAL SPECIFICATION	Document No	250.421			
		Revision	G			
		Page	3/6			

1. SUBJECT and SCOPE

This technical specification covers the minimum general and technical issues, control, acceptance, warranty and other issues on “Catagory “A” buffers with elastomer” to be used in manufacturing and overhauling freight wagons at TÜRASAS Regional Directorate of Eskişehir and TÜRASAS Regional Directorate of Sivas.

2. DEMANDS and FEATURES

- 2.1. EN 15551 (Catagory “A”) is the reference for buffers with elastomer and UIC 828 is the reference for welded components of buffers with elastomer,
- 2.2. Preparing, manufacturing, assembling, control and tests, certification, marking and heat treatment of the buffers with elastomer and its components shall be performed according to EN 15551 (UIC 828 for the welded components of the buffers).
- 2.3. The dimensions of the buffers with elastomer to be used on freight wagons shall be 450 x 340 mm.
- 2.4. The hardness of buffer with elastomer head surface shall be minimum“160 HV 30”.
- 2.5. The buffers shall consist of elastomer springs and elastomer pads.
- 2.6. The operating range temperature of the elastomer spring between (-40)°C and (+50)°C.
- 2.7. Dry paint film thicknesses on any point of the buffers shall be between 120-200 micron.
The undercoat paint shall be Whitewashed Epoxy Primer, the topcoat paint shall be Whitewashed RAL 9005 (Jet Black) Acrylic/Polyurethane.
- 2.8. In order to ensure the traceability of the buffers, the contract number, charge numbers and serial numbers will be written on a plate. This plate will be welded to be in the same position on all buffers. The numbers on the plate welded onto the buffers will be clear to be readable after the buffers are painted and will be placed in a position where they can be seen easily after mounting on the wagon.

TÜRASAS Regional Directorate of Eskişehir	TECHNICAL SPECIFICATION	Document No	250.421		
		Revision	G		
		Page	4/6		

3. BIDDING

- 3.1. The Firms will provide the TSI Certificate of Conformity for Buffers with Elatomers (EC, CE, EG) or Conformity Certificate to the EN 15551 approved by a NoBo with the first product delivery.
- 3.2. The tenderers shall submit TSI/EN conformity declaration which is prepared according to TS EN ISO/IEC 17050-2 belongs to the products offered to TÜRASAS with the first product delivery.
- 3.3. The tenderers shall give the technical drawings of the proposed buffer, the technical specifications, the static and dynamic curves of the elastomer spring with their proposals.
- 3.4. The tenderers who are not manufacturer shall give the names of the manufacturers from whom they will supply the buffers with Miner elastomer springs or the equivalent buffer with elastomer spring with their proposals.
- 3.5. The tenderers shall give the usage and maintenance files of the product in 4.4 and 4.5 articles of TSI WAG 321/2013 regulation with their proposals.

4. CERTIFICATES WITH THE DELIVERED BATCH TO THE ACCEPTANCE DEPARTMENT AFTER CONTROLS AND CHECKS PERFORMED BY THE MANUFACTURER

The manufacturer shall deliver the test results to the Acceptance Department in the form of 3.1 certificate per EN 10204 according to the norms above. TSI certificates (EC, CE, EG) or EN 15551 certificate of conformity approved by a NoBo shall be delivered to the Acceptance department with each batch. The manufacturer shall perform the non-destructive tests and deliver the test reports to TÜRASAS.

5. TESTS AND INSPECTIONS PERFORMED BY THE MANAGEMENT:

The management shall control and check each batch from the point of followings;

- 5.1. TSI certificates (EC, CE, EG) or EN 15551 certificate of conformity approved by a NoBo
- 5.2. 3.1 certificate per EN 10204
- 5.3. 100 % visual inspection
- 5.4. According to TS ISO 2859-1 sample procedure should be done face plate hardness control.

TÜRASAS Regional Directorate of Eskişehir	TECHNICAL SPECIFICATION	Document No	250.421			
		Revision	G			
		Page	5/6			

6. PACKING, DELIVERY PLACE AND DELIVERING MANNER

The components to be submitted to the Acceptance Department shall be delivered in quality and thick wooden, petroleum products, etc made cases resisting the minor damages during loading and unloading to prevent any damage from dust, rain, snow, sun rays, wind, etc. and to be protected any harm during carrying in every weather condition. Four boxes can be stored over and over. Durable string tape shall be wrapped to prevent the spreading the cases.

The cases must be convenient to be lifted by a fork-lift. The weight of the cases with the components in shall be 400-500 kilograms. All writings on the cases must be readable, inerasable and weatherproof and the writings must contain the name of the manufacturer, material name, order number and drawing number, number of the component, the batch number, manufacturing date.

The list consisting of the data above or marking list data shall be delivered to Acceptance Department with the dispatch list or the invoice for each case seperately.

The components delivered to Acceptance Department stocked into the cases upon they are wrapped with bubble pack to prevent from climate and envirolment conditions such as rain, wild, snow and will not be damaged during the stocking, carrying, loading and unloading. The componets shall not touch each others.

In case the components are delivered to the Acceptance Department improper manner, a written report shall be prepared and the components shall be returned to the firm without accepting them.

The place of delivery of the parts packaged in accordance with the technical specifications is TÜRASAS Eskişehir Regional Directorate or TÜRASAS Sivas Regional Directorate, depending on the demand.

7. PROTOTYPE

For the first time being manufacturer, 2 prototype shall be given to TÜRASAS. After accepting the prototype, manufacturer shall start the serial production. Although manufacturer sold product to TÜRASAS before, If the project or manufacturing process has changed, manufacturer shall give another prototype to TÜRASAS.

TÜRASAS Regional Directorate of Eskişehir	TECHNICAL SPECIFICATION	Document No	250.421			
		Revision	G			
		Page	6/6			

8. WARRANTY

The manufacturer shall warranty for the components having manufacturing defects and are not recognised at acceptance stage two (2) years starting from the date of delivering the last batch. The winner firm shall change the defected components with the new ones after the defects are informed in a (1) month.

9. OTHER ISSUES

9.1. Increasing the component number, delivering and delivering type, insurance, warranty, etc. issues which are not in the technical specification shall be defined in the Administrative Specification.