



Subject

**Delivery of spare parts for anticorrosive rubber lining of
Absorber 1&2 and 3&4**

Title

TECHNICAL SPECIFICATION
for
**Delivery of spare parts for anticorrosive rubber lining of
Absorber 1&2 and 3&4**
12HTD10BB001,34HTD10BB001

19.03.19

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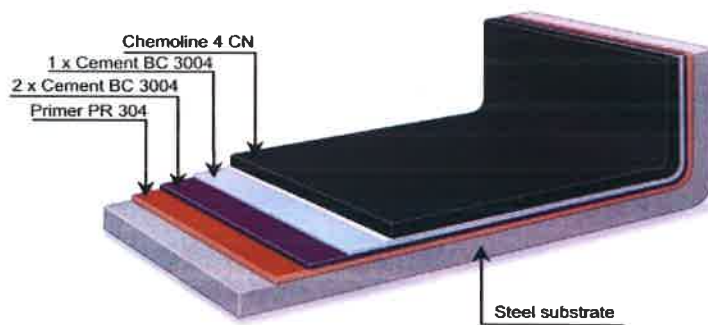
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1. SCOPE OF DELIVERY

The scope of supply includes spare parts for anticorrosive rubber lining of Absorber 1&2 and 3&4

2. TECHNICAL REQUIREMENTS FOR DELIVERY

2.1 RUBBER LINING




Chemoline 4 CN build up.

Specification of vulkanizes rubber

Mechanical - Physical Characteristics Properties	Units	Standard	Value
Polymer		ISO 1629	BIIR
Tensile strength determined on:	[MPa] S2 Bar	DIN 53504	≥ 5 ¹⁾
Elongation at break determined on:	[%] S2 Bar	DIN 53504	≥ 370 ¹⁾²⁾
Hardness	[Shore A]	DIN 53505	50 ± 5 ²⁾
Rebound resilience	[%]	DIN 53512	≥ 6
Abrasion	[mm ³]	ISO 4649	≤ 320
Density	[g / cm ³]	EN ISO 1183-1	1.30 ± 0.02
Bonding strength to steel	[N/mm]	DIN ISO 813	≥ 4
Surface resistivity	[Ω]	DIN IEC 60093	≥ 10 ¹²
Test voltage	[KV/mm]	EN 14879-4	4
Operating temperature		[° C]	≤ 85
Thermal conductivity	[W / mK]	DIN 51046	0.33
Water vapour permeability (thickness of sheet 4 mm)	[g / m ² · d]	DIN 53122	0.04

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2.2 KIT REMAFIX S BLACK TIPTOP based on a modified polybutadiene rubber (BR). Chemical resistance

Article No.:

REMAFIX S BLACK – 525 2853

REMAFIX S Hardener – 525 2891


Specification

Technical Data	Standard	Unit	Value
Polymer Base	-	-	BR
Abrasion	DIN 53516	mm ³	≤ 250
Density	DIN 53479	g/cm ³	1.17 ± 0.02
Hardness Shore A		-	75 ± 5
Max. Surface Pressure	-	N/mm ²	2
Surface Resistance	DIN IEC 167	-	≥ 10 ¹¹
Elongation at Break	DIN 53504 (ASTM D412)	%	≥ 100
Tensile Strength	DIN 53504 (ASTM D412)	N/mm ²	≥ 3
Max. Continuous Operating Temperature	-	°C	+90
Temperature Range	-	°C	-40 up to +90

№	Description of material	Material No	Dimension	Package	Quantity
1.	CHEMOLINE 4 CN - 4mm Tip Top	8003655	m ²	30 roll (4x1.100x10.000)	330
2.	Cement BC 3004 Tip Top	8003657	Kg	30 x 9,0 kg.	270
3.	Hardener E40 Tip Top	8003658	Pcs.	0,030 kg.	270
4.	Primer PR304 Tip Top	8003656	Kg	10 kg (15x10kg)	150
5.	Cleaner CE	8003659	Kg	8,4 kg (10x8,4kg)	84
6.	REMAFIX S Black TipTop	8004694	Kg	0,5 kg	20
7.	REMAFIX S H3 TipTop	8004695	Piece	0.025 kg	50

*Rubber and adhesive system to be producing 2019 year

*Producer Tip Top Germany

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2.1 TIP TOP SPECIALIST FOR QUALITY CONTROL

Scope of activities during repair works subject to specialists' responsibility:

- Visual inspection of anticorrosive rubber lining during repair works
- Spark testing (induction device check, temperature / humidity / mist point measurement)
- Removal of damaged rubber lining (at Contractor's judgment)
- Application of adhesive composition
- Application of anticorrosive rubber lining
- Final tests at the repaired areas
- Inspection Report

The period for inspection and execution of aforementioned activities from Tip Top specialist is as follows:

- For Minor Repair works at Absorber 1&2 – 16.07. ÷ 25.07.2019 - 10 calendar days
 - For Minor Repair works at Absorber 3&4 – 14.06. ÷ 23.06.2019 - 10 calendar days
- * Total two repair 20 calendar days**

№	Activity	Execution time	Dimension	Quantity	Single price without VAT	Total cost without VAT
7.	TIP TOP SPECIALIST FOR QUALITY CONTROL	14.06.÷ 23.06.2019 16.07.÷ 25.07.2019	Workday	20 /10-hour workday /		
8.	TIP TOP SPECIALIST FOR QUALITY CONTROL Transport	13.06.19 and 24.06.19 15.07.19 and 26.07.19	Day	4		

3. DELIVERY TERMS

- 3.1. Sixty (60) calendar days from Purchase Order receipt

4. DELIVERY PLACE

TPP ContourGlobal Maritsa East 3 is situated at approximately 60 km to the south east of Stara Zagora town, 10 km to the south east of the town of Galabovo and 2 km to the North of the village of Mednikarovo, Galabovo Municipality, Stara Zagora District near Troyanovo 3 Open pit.


GPS: N-42.143321 and E-26.000856

Goods shall be supplied to store house on the territory of TPP ContourGlobal Maritsa East 3.

5. RULES FOR ENTERING THE POWER STATION DURING DELIVERIES OF GOODS

The working time of the power plant starts at 8 a.m. The warehouse working time is Monday - Friday from 8:30 a.m. to 15:00 p.m. Suppliers shall follow the regulations below when delivering goods:

- When letters, packages or small volume goods, which can be carried by hand, are delivered, they are given to the security guards at the main gate, whose duty is to hand them over to the recipient. If

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the person who has delivered the goods has to enter the power station, he/she is issued a temporary pass, giving access to the power station to supply the goods to the recipient or to the warehouse.

- During the delivery of goods with a vehicle, the procedure is as follows: The driver submits payment documentation, specifications, supply contracts and other documents, confirming that the goods enter CGME3 or CGOB under a contract. A document is filled in at the gate and then it is signed by Head of Health, safety and security department.
- A vehicle with unwashed tires or unsupported properly loads are not allowed in or outside the territory of the power station.
- During loading - unloading activities, the vehicle driver is under obligation to use PPE, which are mandatory for TPP territory - a helmet, protective footwear and suitable working clothes.
- The vehicle drivers, transporting volatile or easily scattered materials are under obligation to put covers on the vehicle bodywork.
- The vehicle drivers on TPP site have to move and park in such a way that the traffic of the other vehicles/fire engines, ambulance, office vehicles / or persons would not be obstructed in any way.
- On completion of loading - unloading activities, the vehicles shall immediately leave the power station.
- Bringing alcohol /beer including/, drugs or other psychotropic substances, in /out of the power station site is strictly forbidden as well as the access of persons under the influence of such substances.
- It is strictly forbidden to enter fire arms, gas weapons and cold steel weapons as well as explosive materials and air nail guns.

6. WRAPPING, PACKAGING AND BATCHING


Manufacturer of goods is reliable for wrapping, labelling, packaging and batching of goods according to rules and requirements for safe transportation and keeping considering physical and chemical properties of goods.

The purpose of labeling is to guarantee users availability of full information about products content and composition in order to protect their interests and health. There could be additional information giving details for specific aspects of product, for instance its origin or method of manufacture. Some chemical products are subject to specific regulations. Labeling should also contain precise information to guarantee safe use and allow users to exercise their real choice. Besides, production criteria should be observed during packaging in order to avoid goods contamination or damage at the time of transportation. Protective packing preserves shocks and vibration sensitive devices when manipulated, stored and transported by getting back its form to absorb consecutive mechanical impacts. Variety of materials and methods for such protection exist and should be well considered before distribution of sensitive products.

7. ACCEPTANCE OF GOODS IN WAREHOUSE

During supply of goods, the Contractor/Supplier is obliged to send notification of the date and hours of delivery one day in advance for the purpose of unloading machinery arrangement.

The warehouse personnel certifies by stamping the CMR /transport document/ or acceptance-delivery protocol the receipt of goods, then informs the person who is responsible for the technical control via e-mail. Until the end of next working day responsible technical person shall exercise a technical control of delivered

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goods /material/ and sign a protocol for acceptance of goods, by filling all information for technical control in the protocol. Later on goods shall be placed on the proper location in warehouse and relevant invoice/acceptance-delivery protocol shall be handed over to accounting department.

In case of discrepancy with the technical specification or parameters specified in the purchase requisition, or in case of damage assertion, stated in protocol for technical control, goods are sent back to the Supplier and not accepted in warehouse. Supplier is obliged to replace the goods with ones in working order.

8. PROTOCOLS AND REFERENCE DOCUMENTS

Goods shall be accompanied by following docs:

Acceptance-delivery protocol, Quality certificate from manufacturer, Warranty certificate, Instruction of use from manufacturer, CMR or packing list or other equivalent docs, Quality certificates of materials used and Inspection report for Absorber 12 and 34.

