Specifications

**Construction project: …………............................................................................................................................................................................**

**Architect/client: …………............................................................................................................................................................................**

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| **Preliminary remarks:** |
| Work is carried out using products from the Minden-based company Triflex GmbH & Co. KG. |
| The offer is for the procurement and installation of the Triflex CPS-I+ interior parking deck waterproofing system as per VV TB, Part A, No. A 1.2.3.2 (OS 11b).  The system design meets the requirements for class OS 11b as per the respective valid version of DIN 18532 Part 6, the DBV data sheet for multi-storey car parks and underground car parks and TR maintenance in conjunction with the DAfStb Directive "Protection and Repair of Concrete Components”.  The coating system, after application, meets the requirements for fire classification Bfl-s1 as per DIN EN 13501-1. |
| Compliance with all applicable guidelines is taken into account and required for the different recommended system designs using Triflex products. |
| Before the contract is awarded, contractors must prove that they have been trained in the application of Triflex products. Otherwise, instruction by a trainer shall be provided on-site. |
| If work is to be carried out with subcontractors, the client or his representative must be informed of this in good time before the start of work. Moreover, a party in possession of an SIVV certificate must be present at the construction site at all times. The certificates must be held available accordingly. |
| The quantities contained herein shall be checked on the building site. |
| The substrate must be pre-treated in accordance with the specifications in the Repair Guideline (Rili SIB). The following consumption specifications therefore relate to a roughness depth of Rt= 0.5 mm. In case of increased roughness depths, scratch and levelling coats must be costed separately. |
| Proceed as per DAfStb Rili SIB Part 3, Annex A to determine adhesive strengths and as per DAfStb Rili SIB Part 2, table 2.5 for substrate pre-treatment. |
| Billing shall be based on measurements conducted jointly by the contractor and client. |
| The coating system must be applied so as to prevent rainwater from penetrating the system structure in the event that work is interrupted. |
| For disposal of rubble, the cartage and landfill costs shall be included in the individual prices or itemised separately. |
| Concerns about prior work performed by other contractors shall be communicated to the client in writing immediately, ideally before work begins. |
| It is recommended that the bidder view the work site prior to submitting a tender. |
| If alterations or special work not included herein become necessary after work has commenced, detailed notification shall be given before going ahead with such alterations or special work, and the work shall subsequently be billed separately. |
| Unless explicitly stated otherwise, all work shall be regarded as a comprehensive turnkey service, including the supply of all required materials and ancillary services. |
| Multi-storey car park coatings and traffic markings are subject to constant loads and wear in accordance with the level of use. |

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| The system build-up must be adapted by the expert planner to meet the project-specific requirements. Detailed tender texts must be created by the planner on his or her own authority. There is no specific project consultation associated with the issue of these draft specifications. The preparation of drafts is a non-obligatory service provided by Triflex. Any legal claims from this service are excluded. |
| The bases for the implementation of concrete repairs which are relevant to stability, are the rules and directives introduced in the German federal states as Technical Building Regulations as per VV TB, Part A, No. A 1.2.3.2 and VV TB, Part C, No. C 3.12. |
| The contract comprises the following components:   * Specifications * System description, system drawings and manufacturer’s product information * DIN 18202 Tolerances for building construction * The rules and directives introduced in the German federal states as Technical Building Regulations as per VV TB, Part A, No. A 1.2.3.2. * Building code regulations * Accident prevention regulations * German Construction Contract Procedures (VOB), Part B   in the versions valid at the time of conclusion of the contract. |
| System and product characteristics:   * Surface protection system with epoxy resin and polyurethane resin (EP/PUR) base * Mechanically strong * Seamless * System-integrated detail solutions * Full-surface adhesion and resistant to infiltration from below * Increased dynamic crack-bridging capabilities * Cold-applied * Ready for pedestrian traffic after approx. 20 hrs, ready for vehicle traffic after approx. 2 days * Triflex CPS-I+ meets the requirements for class OS 11b as per the respective valid version of DIN 18532 Part 6, the DBV data sheet for multi-storey car parks and underground car parks and TR maintenance in conjunction with the DAfStb Directive "Protection and Repair of Concrete Components” * Certificate of suitability for use as per VV TB, Part A, No. A 1.2.3.2 (OS 11b) |

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| Performance properties of Triflex CPS-I+ (OS 11b) as per DBV data sheet for multi-storey car parks and underground car parks (2018) plus additional performance properties: |

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| **Line** | **Characteristics** | | **Test method** | **Requirement** | **Triflex CPS-I+** |
| 1 | Abrasion resistance | | DIN EN ISO 5470-1 | Mass loss < 3000 mg, friction wheel: H22/1000 cycles/load: 1000 g  The requirements of DIN EN 13813 must also be met (see section A.3.1) | fulfilled |
| 2 | CO2 permeability | | DIN EN 1062-6 | sd > 50 m | fulfilled |
| 3 | Water vapour permeability | | DIN EN ISO 7783 | Class III: sd >50 m | fulfilled |
| 4 | | Capillary water absorption and water permeability | DIN EN 1062-3 | w < 0.1 kg/(m²\*h0.5) | fulfilled |
| 5 | | Bond strength as per testing for temperature change tolerance  For outdoor usage under the influence of de-icing salts: Thunder shower exposure (temperature shock) (10x)  And thermal cycling with alternating freezing/thawing with exposure to de-icing salt (50x) | DIN EN 13687-2  DIN EN 13678-1 | After thermal cycling  a) No cracks, bubbles, detachment  b) Pull-off trial ≥ 1.5 (1.0) N/mm²  The value in brackets is the lowest permissible value for each reading. | fulfilled  fulfilled |
| 6 | | Resistance to strong chemical attack  Class I: 3d without pressure  Test liquids: Groups 1, 3 and 10 according to DIN EN 13529 | DIN EN 13529 | 24 hrs after removing the coating from the test liquid, reduction of the hardness by less than 50 % when measuring after the indentation hardness test as per Buchholz, DIN EN ISO 2815, or Shore hardness, DIN EN ISO 868 | fulfilled |
| 7 | | Dynamic crack-bridging capabilities  After conditioning according to DIN EN 1062-11:2002-10,  7 days at 70 °C for reactive resin systems | DIN EN 1062-7 | Dynamic crack-bridging capabilities  OS 11: B 3.2 (-20 °C) | fulfilled |
| 8 | | Impact strength | DIN EN ISO 6272-2 | After loading, no cracks and no flaking  Class I: ≥ 4 Nm | fulfilled |
| 9 | | Pull-off trial | DIN EN 1542 | ≥ 1.5 (1.0) N/mm² | fulfilled |
| 10 | | Fire classification after application | DIN EN 13501-1 | Minimum requirements: Class Efl | fulfilled |
| 11 | | Grip / slip resistance | DIN EN 13036-4 | Class III: > 55 units tested in wet condition (outside) | fulfilled |
| 12 | | Fire classification after application | DIN EN 13501-1 | Minimum requirements: Class Efl | Bfl-s1 |
| 13 | | Non-slip class | DIN 51130 |  | R10 V4 |
| 14 | | Fire classification of the markings | DIN EN 13501-1 |  | Bfl-s1 |

1) Layer filled with sanding only is only permitted for occasional access (from [R1]).  
2) Depends on the viscosity (min. 20 M.-%) (from [R1]).  
3) Systems with top finish must be checked completely without finish; grip, wear and crack bridging must be checked additionally with finish.

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| **1** |  |  | General information |  |  |
|  |  |  |  |  |  |
| 1.1 | Lump sum |  | Building site preparation | Lump sum | \_\_\_\_\_\_\_\_\_ |
|  |  |  |  |  |  |
| 1.2 | Lump sum |  | Container Delivery, set-up, provision and off-site transportation of a material and device container. | Lump sum | \_\_\_\_\_\_\_\_\_ |
|  |  |  |  |  |  |
| 1.3 | Lump sum |  | **Power supply**  Provision of power supply for alternating and three-phase current, to be removed on completion of the building project. | Lump sum | \_\_\_\_\_\_\_\_\_ |
|  |  |  |  |  |  |
| 1.4 | Lump sum |  | **Water supply**  Provision of water supplyfor the necessary cleaning tasks, to be removed on completion of the building project. | Lump sum | \_\_\_\_\_\_\_\_\_ |
|  |  |  |  |  |  |
| 1.5 | Lump sum |  | **Fence around building site**  Provision of fence for the entire period of the building project, to be adapted as required by the individual work stages. | Lump sum | \_\_\_\_\_\_\_\_\_ |
|  |  |  |  |  |  |
| 1.6 | Lump sum |  | **Re-routing of traffic**  Implementing measures to re-route traffic, such as road signs, traffic light system etc., setting up any necessary devices, adapting in accordance with progress of the building project and removing on completion of the building project. | Lump sum | \_\_\_\_\_\_\_\_\_ |
|  |  |  |  |  |  |
| **2** |  |  | **Structure and substrate inspection** |  |  |
|  |  |  |  |  |  |
| 2.1 | Lump sum |  | Cavities Checking for cavities by tapping the existing concrete surfaces with a hammer or chain, and marking any areas accordingly. | Lump sum | \_\_\_\_\_\_\_\_\_ |
|  |  |  |  |  |  |
| 2.2 | Lump sum |  | Adhesive tensile strength Determining and recording the specified adhesive tensile strength of the existing substrate using a suitable gauge (e.g. a Freundl unit).  Number of measurements: …… | Lump sum | \_\_\_\_\_\_\_\_\_ |
|  |  |  |  |  |  |
| 2.3 | Lump sum |  | Compressive strength Determining and recording the compressive strength of the existing concrete substrate using a Schmidt Hammer.  Number of measurements: …… | Lump sum | \_\_\_\_\_\_\_\_\_ |
|  |  |  |  |  |  |
| 2.4 | Lump sum |  | Moisture content Determining and recording the moisture content of the existing concrete substrate using a suitable gauge (e.g. electronic moisture meter).  Number of measurements: …… | Lump sum | \_\_\_\_\_\_\_\_\_ |
|  |  |  |  |  |  |
| 2.5 | Lump sum |  | Core sample Determining the layer configuration and each of the layer thicknesses by removing a core sample.  Number of measurements: …… | Lump sum | \_\_\_\_\_\_\_\_\_ |
|  |  |  |  |  |  |
| 2.6 | Lump sum |  | Analysis of core sample Determining the chloride content in the substrate by testing the core sample (see Item 2.5).  Number of measurements: …… | Lump sum | \_\_\_\_\_\_\_\_\_ |
|  |  |  |  |  |  |
| 2.7 | Lump sum |  | Checking gradient and unevenness Checking the existing substrate for sufficient gradient, formation of puddles and unevenness. | Lump sum | \_\_\_\_\_\_\_\_\_ |
|  |  |  |  |  |  |
| 2.8 | Lump sum |  | Site journal with continuous measuring Provision of suitable measuring devices for the continuous measuring of air humidity, ground temperature, air temperature and to determine the dew point throughout the building project, incl. a site journal with logging of measured values. | Lump sum | \_\_\_\_\_\_\_\_\_ |
|  |  |  |  |  |  |
| **3** |  |  | **Substrate pretreatment** |  |  |
|  |  |  |  |  |  |
| 3.1 | \_\_\_\_\_\_ m2 |  | **Milling**  Removal of any contaminated surfaces on the concrete with a suitable milling machine approx. 3–5 mm in depth in order to ensure the adhesive property and soundness of the substrate incl. acknowledgement of delivery, off-site transportation and proper disposal of the milled material. | \_\_\_\_\_\_ /m2 | Unit price |
|  |  |  |  |  |  |
| 3.2 | \_\_\_\_\_\_ m |  | **Milling in proximity to construction and settlement joints**  Machine milling, …… cm wide, approx. 3–5 mm in depth including acknowledgement of delivery, off-site transportation and proper disposal of the milled material.  (See Triflex system drawing CPS-I+-1806 or CPS-I+-1807 and CPS-I+-1808) | \_\_\_\_\_\_ /m | \_\_\_\_\_\_\_\_\_ |
|  |  |  |  |  |  |
| 3.3 | \_\_\_\_\_\_ m2 |  | **Shot-blasting**  Cleaning of entire surface, incl. construction and settlement joint areas by Blastrac shot-blasting crosswise, incl. machine-sanding junctions, cleaning of surfaces, off-site transportation and proper disposal of any blasting residue. | \_\_\_\_\_\_ /m2 | \_\_\_\_\_\_\_\_\_ |
|  |  |  |  |  |  |
| 3.4 | \_\_\_\_\_\_ m² |  | Grinding Preparation of the substrate by grinding with suitable abrasive tools, incl. cleaning, acknowledgement of delivery, off-site transportation and proper disposal of any rubble. | \_\_\_\_\_\_ /m² | \_\_\_\_\_\_\_\_\_ |
|  |  |  |  |  |  |
| 3.5 | \_\_\_\_\_\_ m |  | Grinding the junctions Preparation of the substrate of the wall junctions and details by grinding with suitable abrasive tools incl. cleaning, acknowledgement of delivery, off-site transportation and proper disposal of any rubble.  Junction height: …… cm | \_\_\_\_\_\_ /m | \_\_\_\_\_\_\_\_\_ |
|  |  |  |  |  |  |
| 3.6 | \_\_\_\_\_\_ m |  | **Joint milling machine/joint hook**  Removal of any joint sealant as required using joint milling machine or joint hook. | \_\_\_\_\_\_ /m | \_\_\_\_\_\_\_\_\_ |
|  |  |  |  |  |  |
| 3.7 | \_\_\_\_\_\_ m |  | **Levelling**  Levelling of joint sealant in still functional construction joints by filling with comparable material or Triflex Pox mortar, or removal of any oozing or excess material in order to achieve a flush finish. | \_\_\_\_\_\_ /m | \_\_\_\_\_\_\_\_\_ |
|  |  |  |  |  |  |
| 3.8 | \_\_\_\_\_\_ m² |  | **Preparing metal substrates**  Thoroughly abrade the metal substrates with Triflex Cleaner and additionally roughen the surface.  Consumption: min. 0.20 l/m² | \_\_\_\_\_\_ /m² | Unit price |
|  |  |  |  |  |  |
| **4** |  |  | **Triflex Primer** |  |  |
|  |  |  |  |  |  |
| 4.1 | \_\_\_\_\_\_ m |  | **Priming of wall junctions**  On concrete and masonry substrates up to max. 4 wt% substrate moisture.  Priming with Triflex Pox Primer 116+, including dressing with quartz sand, size 0.3-0.8 mm. Removal of any surplus after curing.  Consumption of Triflex Pox Primer 116+: at least 0.30 kg/m²  Consumption of quartz sand 0.3–0.8 mm: at least 1.00 kg/m²  Application according to the material manufacturer’s technical guidelines. Adhesion to the substrate must be checked on a case-by-case basis.  Junction height: …… cm | \_\_\_\_\_\_ /m | \_\_\_\_\_\_\_\_\_ |
|  |  |  |  |  |  |
| 4.2 | \_\_\_\_\_\_ m2 |  | **Priming of kerb**  On concrete and masonry substrates up to max. 4 wt% substrate moisture.  Priming with Triflex Pox Primer 116+, including dressing with quartz sand, size 0.3-0.8 mm. Removal of any surplus after curing.  Consumption of Triflex Pox Primer 116+: at least 0.30 kg/m²  Consumption of quartz sand 0.3–0.8 mm: at least 1.00 kg/m²  Application according to the material manufacturer’s technical guidelines. Adhesion to the substrate must be checked on a case-by-case basis.  Kerb height: …… cm, width: …… cm | \_\_\_\_\_\_ /m2 | \_\_\_\_\_\_\_\_\_ |
|  |  |  |  |  |  |
| 4.3 | \_\_\_\_\_\_ m |  | **Priming of construction joint**  On concrete and masonry substrates up to max. 4 wt% substrate moisture.  Priming with Triflex Pox Primer 116+, including dressing with quartz sand, size 0.3-0.8 mm. Removal of any surplus after curing.  Consumption of Triflex Pox Primer 116+: at least 0.30 kg/m²  Consumption of quartz sand 0.3–0.8 mm: at least 1.00 kg/m²  Application according to the material manufacturer’s technical guidelines. Adhesion to the substrate must be checked on a case-by-case basis.  Construction joint width: …… cm | \_\_\_\_\_\_ /m | \_\_\_\_\_\_\_\_\_ |
|  |  |  |  |  |  |
| 4.4 | \_\_\_\_\_\_ m |  | **Priming of settlement joint**  On concrete and masonry substrates up to max. 4 wt% substrate moisture.  Priming with Triflex Pox Primer 116+, including dressing with quartz sand, size 0.3-0.8 mm. Removal of any surplus after curing.  Consumption of Triflex Pox Primer 116+: at least 0.30 kg/m²  Consumption of quartz sand 0.3–0.8 mm: at least 1.00 kg/m²  Application according to the material manufacturer’s technical guidelines. Adhesion to the substrate must be checked on a case-by-case basis.  Settlement joint width: …… cm | \_\_\_\_\_\_ /m | \_\_\_\_\_\_\_\_\_ |
|  |  |  |  |  |  |
| 4.5 | \_\_\_\_\_\_ m2 |  | **Priming of mineral substrate**  On mineral substrates up to max. 4 wt% substrate moisture.  Priming with Triflex Pox Primer 116+, including dressing with quartz sand, size 0.3-0.8 mm. Removal of any surplus after curing.  Consumption of Triflex Pox Primer 116+: at least 0.30 kg/m²  Consumption of quartz sand 0.3–0.8 mm: at least 1.00 kg/m²  Application according to the material manufacturer’s technical guidelines. Adhesion to the substrate must be checked on a case-by-case basis. | \_\_\_\_\_\_ /m2 | \_\_\_\_\_\_\_\_\_ |
|  |  |  |  |  |  |
| 4.6 | \_\_\_\_\_\_ m² |  | **Priming of metal**  e.g. stainless steel, steel and zinc.  Priming with Triflex Metal Primer, incl. pre-cleaning of the surface with Triflex Cleaner.  Consumption of Triflex Cleaner: at least 0.20 l/m²  Consumption of Triflex Metal Primer: approx. 0.08–0.10 l/m²  Application according to the material manufacturer’s technical guidelines. Adhesion to the substrate must be checked on a case-by-case basis. | \_\_\_\_\_\_ /m² | \_\_\_\_\_\_\_\_\_ |
|  |  |  |  |  |  |
| 4.7 | \_\_\_\_\_\_ m2 |  | **Additional priming (surface)**  Additional priming is required on highly absorbent substrates and with substrate moistures of between 4–6 wt%.  Prime with Triflex Pox Primer 116+.  Consumption: at least 0.50 kg/m² (unfilled and non-dressed)  Application as per the material manufacturer’s technical guidelines. Adhesion to the substrate must be checked on a case-by-case basis. | \_\_\_\_\_\_ /m2 | Unit price |
|  |  |  |  |  |  |
| 4.8 | \_\_\_\_\_\_ m |  | **Additional priming (junctions)**  Additional priming is required on highly absorbent substrates and with substrate moistures of between 4–6 wt%.  Prime with Triflex Pox Primer 116+.  Consumption: at least 0.50 kg/m² (unfilled and non-dressed)  Application as per the material manufacturer’s technical guidelines. Adhesion to the substrate must be checked on a case-by-case basis.  Junction height: …… cm | \_\_\_\_\_\_ /m | Unit price |
|  |  |  |  |  |  |
| **5** |  |  | **Triflex repairs** |  |  |
|  |  |  |  |  |  |
| 5.1 | \_\_\_\_\_\_ m2 |  | **Scratch coat**  Roughness depth levelling Rt 0.5-1.5 mm.  Scratch coat: 1.00 kg of Triflex Pox Primer 116+ is mixed with  0.50 kg of quartz sand 0.1-0.4 mm.  Consumption approx. 2.20 kg/m2 per mm layer thickness  Application as per the material manufacturer’s technical guidelines. | \_\_\_\_\_\_ /m2 | \_\_\_\_\_\_\_\_\_ |
|  |  |  |  |  |  |
| 5.2 | \_\_\_\_\_\_ m2 |  | **Levelling coat**  Roughness depth levelling Rt 2.0-3.0 mm  Mortar mix: 1.00 kg of Triflex Pox Primer 116+ is mixed with  0.70 kg of quartz sand 0.1–0.4 mm and 0.30 kg of quartz sand 0.3–0.8 mm  Consumption approx. 2.20 kg/m2 per mm layer thickness  Application as per the material manufacturer’s technical guidelines. | \_\_\_\_\_\_ /m2 | \_\_\_\_\_\_\_\_\_ |
|  |  |  |  |  |  |
| 5.3 | \_\_\_\_\_\_ m2 |  | **Mortar**  Levelling off of larger areas of damage with Triflex Pox mortar.  Mixing ratio and grading curve as per product information.  Consumption: at least 2.20 kg/m² per mm layer thickness  Application as per the material manufacturer’s technical guidelines.  Average layer thickness: …… | \_\_\_\_\_\_ /m2 | \_\_\_\_\_\_\_\_\_ |
|  |  |  |  |  |  |
| **6** |  |  | Triflex detail waterproofingCreation of detail waterproofing with Triflex Than R 557 thix, including Triflex Special Fleece. |  |  |
|  |  |  |  |  |  |
| 6.1 | \_\_\_\_\_\_ m |  | **Wall junction**  Waterproofing of the wall junction with Triflex Than R 557 thix, including Triflex Special Fleece.  Triflex Than R 557 thix, colour 7032, consumption at least 3.00 kg/m².  Application as per the material manufacturer’s technical guidelines.  (See Triflex system drawing CPS-I+-1802)  Junction height: …… cm | \_\_\_\_\_\_ /m | \_\_\_\_\_\_\_\_\_ |
|  |  |  |  |  |  |
| 6.2 | \_\_\_\_\_\_ m2 |  | **Kerb**, **threshold**  Waterproofing of the kerb/threshold with Triflex Than R 557 thix, including Triflex Special Fleece.  Triflex Than R 557 thix, colour 7032, consumption at least 3.00 kg/m²  Application as per the material manufacturer’s technical guidelines.  (See Triflex system drawing CPS-I+-1804) | \_\_\_\_\_\_ /m2 | \_\_\_\_\_\_\_\_\_ |
|  |  |  |  |  |  |
| 6.3 | \_\_\_\_\_\_ m |  | **Kerb, collision protection**  Bonding of a cover plate to the kerb using Triflex Cryl Paste and additional mechanical anchors if necessary.  Triflex Cryl Paste, consumption: at least 0.50 kg/m²  Application according to the material manufacturer’s technical guidelines.  (See Triflex system drawing CPS-I+-1804) | \_\_\_\_\_\_ /m | \_\_\_\_\_\_\_\_\_ |
|  |  |  |  |  |  |
| 6.4 | \_\_\_\_\_ pc. |  | **Gully**  Waterproofing of the drainage channel (gully) with Triflex Than R 557 thix, including Triflex Special Fleece.  Triflex Than R 557 thix, colour 7032, consumption at least 3.00 kg/m².  Application as per the material manufacturer’s technical guidelines.  (See Triflex system drawing CPS-I+-1805) | \_\_\_\_\_ /pc. | \_\_\_\_\_\_\_\_\_ |
|  |  |  |  |  |  |
| 6.5 | \_\_\_\_\_\_ m |  | **Drainage channel**  Waterproofing of the drainage channel with Triflex Than R 557 thix, including Triflex Special Fleece.  Triflex Than R 557 thix, colour 7032, consumption at least 3.00 kg/m²  Application as per the material manufacturer’s technical guidelines.  (See Triflex system drawing CPS-I+-1805) | \_\_\_\_\_\_ /m | \_\_\_\_\_\_\_\_\_ |
|  |  |  |  |  |  |
| 6.6 | \_\_\_\_\_ pc. |  | **Column joint**  Waterproofing of the prop connectors with Triflex Than R 557 thix, including Triflex Special Fleece.  Triflex Than R 557 thix, colour 7032, consumption at least 3.00 kg/m²  Application as per the material manufacturer’s technical guidelines.  (See Triflex system drawing CPS-I+-1803)  Junction height: …… cm | \_\_\_\_\_ /pc. | \_\_\_\_\_\_\_\_\_ |
|  |  |  |  |  |  |
| 6.7 | \_\_\_\_\_\_ pc. |  | **Penetration**  Waterproofing of the penetrations with Triflex Than R 557 thix, including Triflex Special Fleece.  Triflex Than R 557 thix, colour 7032, consumption at least 3.00 kg/m².  Application as per the material manufacturer’s technical guidelines.  (Corresponds to Triflex system drawing CPS-I+-1803)  Junction height: …… cm | \_\_\_\_\_ /pc. | \_\_\_\_\_\_\_\_\_ |
|  |  |  |  |  |  |
| 6.8 | \_\_\_\_\_\_ m |  | **Door sill**  Waterproofing of the junction to a door sill with Triflex Than R 557 thix, including Triflex Special Fleece.  Triflex Than R 557 thix, colour 7032, consumption at least 3.00 kg/m².  Application as per the material manufacturer’s technical guidelines.  (Corresponds to Triflex system drawing CPS-I+-1802) | \_\_\_\_\_\_ /m | \_\_\_\_\_\_\_\_\_ |
|  |  |  |  |  |  |
| **7** |  |  | Triflex joint waterproofing |  |  |
|  |  |  |  |  |  |
| 7.1 | \_\_\_\_\_\_ m |  | Construction joint Waterproofing of the construction joint with Triflex Than R 557 thix, including Triflex Special Fleece.  If required, levelling out of the joint flush with Triflex Pox mortar, including dressing with a surplus of quartz sand, grain size 0.3–0.8 mm.  Width ….. cm, consumption of Triflex Pox mortar: approx. 2.20 kg/m² per mm layer thickness.  Triflex Than R 557 thix, colour 7032, consumption at least 3.00 kg/m². Application as per the material manufacturer’s technical guidelines.(See Triflex system drawing CPS-I+-1806) | \_\_\_\_\_\_ /m | \_\_\_\_\_\_\_\_\_ |
|  |  |  |  |  |  |
| 7.2 | \_\_\_\_\_\_ m |  | Settlement joint surface Waterproofing of the settlement joint with Triflex Than R 557 thix, including Triflex Special Fleece.  Apply a width of approx. 4 cm of Triflex Cryl Paste to both sides of the joint to bond the Triflex Support Strip, consumption: 1.40 kg/m² per mm coat thickness.  Triflex Than R 557 thix, colour 7032, consumption at least 2.10 kg/m, including 2 layers of Triflex Special Fleece, fleece width 35 cm and a PE round sealing band (closed-cell).  Filled with Triflex FlexFiller, colour 7043, consumption at least 1.40 kg/m² per mm layer thickness Application as per the material manufacturer’s technical guidelines. (See Triflex system drawing CPS-I+-1807)  Note:  The settlement joints are all maintenance joints. It may be necessary to renew the joint sealant after structural movement. | \_\_\_\_\_\_ /m | \_\_\_\_\_\_\_\_\_ |
|  |  |  |  |  |  |
| 7.3 | \_\_\_\_\_\_ m |  | Settlement joint – wall junction Waterproofing of the settlement joint with Triflex Than R 557 thix, including Triflex Special Fleece.  Apply a width of approx. 4 cm of Triflex Cryl Paste to both sides of the joint to bond the Triflex Support Strip, consumption: 1.40 kg/m² per mm coat thickness.  Triflex Than R 557 thix, colour 7032, consumption at least 2.10 kg/m, including 2 layers of Triflex Special Fleece, fleece width 35 cm and a PE round sealing band (closed-cell).  Filled with Triflex FlexFiller, colour 7043, consumption at least 1.40 kg/m² per mm layer thickness Application as per the material manufacturer’s technical guidelines. (See Triflex system drawing CPS-I+-1808)  Junction height: …… cm  Note:  The settlement joints are all maintenance joints. It may be necessary to renew the joint sealant after structural movement. | \_\_\_\_\_\_ /m | \_\_\_\_\_\_\_\_\_ |
|  |  |  |  |  |  |
| **8** |  |  | **Triflex surface coating** |  |  |
|  |  |  |  |  |  |
| 8.1 | \_\_\_\_\_\_ m2 |  | **Surface coating**  Creation of the crack-bridging dressing layer with Triflex Than RG 568+, filled and dressed with quartz sand. Removal of any surplus after curing.  Triflex Than RG 568+,, colour grey, consumption at least 2.00 kg/m².  Quartz sand 0.1–0.4 mm (filling), consumption at least 0.60 kg/m².  Quartz sand 0.3–0.8 mm (dressing), consumption at least 8.00 kg/m² with surplus.  Application as per the material manufacturer’s technical guidelines.  (See Triflex system drawing CPS-I+-1801) | \_\_\_\_\_\_ /m2 | \_\_\_\_\_\_\_\_\_ |
|  |  |  |  |  |  |
| 8.2 | \_\_\_\_\_\_ m2 |  | **Allowance for surface waterproofing (Rt = 0.2 mm)**  Surcharge for additional levelling off of the roughness depth for each 0.5 mm with Triflex Than RG 568+.  Determination of the roughness depth after surface preparation as per Rili-SIB (2001).  To achieve the minimum layer thicknesses as per the Repair Guideline, the respective minimum thickness surcharges and layer thickness surcharges (dz) for levelling off roughness depths (Rt) must be included.  Rt = 0.2 mm / dz = 300 µm  Consumption: at least 0.40 kg/m² | \_\_\_\_\_\_ /m2 | \_\_\_\_\_\_\_\_\_ |
|  |  |  |  |  |  |
| 8.3 | \_\_\_\_\_\_ m2 |  | **Allowance for surface waterproofing (Rt = 0.5 mm)**  To achieve the minimum layer thicknesses as per the Repair Guideline, the respective minimum thickness surcharges and layer thickness surcharges (dz) for levelling off roughness depths (Rt) with Triflex Than RG 568+ must be included.  Rt = 0.5 mm / dz = 600 µm  Consumption: at least 1.00 kg/m² | \_\_\_\_\_\_ /m2 | \_\_\_\_\_\_\_\_\_ |
|  |  |  |  |  |  |
| 8.4 | \_\_\_\_\_\_ m2 |  | **Allowance for surface waterproofing (Rt = 1.0 mm)**  To achieve the minimum layer thicknesses as per the Repair Guideline, the respective minimum thickness surcharges and layer thickness surcharges (dz) for levelling off roughness depths (Rt) with Triflex Than RG 568+ must be included.  Rt = 1.0 mm / dz = 1000 µm  Consumption: at least 2.00 kg/m² | \_\_\_\_\_\_ /m2 | \_\_\_\_\_\_\_\_\_ |
|  |  |  |  |  |  |
| **9** |  |  | **Triflex finish** |  |  |
|  |  |  |  |  |  |
| 9.1 | \_\_\_\_\_\_ m |  | **Finishing of wall junction**  Finishing the wall junctions with Triflex Pox Finish 173+, mixed with Triflex Powder Thixo.  Colour 7032, consumption: at least 0.60 kg/m².  Application as per the material manufacturer’s technical guidelines.  (See Triflex system drawing CPS-I+-1802)  Junction height: …… cm | \_\_\_\_\_\_ /m | \_\_\_\_\_\_\_\_\_ |
|  |  |  |  |  |  |
| 9.2 | \_\_\_\_\_\_ m2 |  | **Finishing of kerb, threshold**  Finishing in the area of the kerb and thresholds with Triflex Pox Finish 173+.  Colour 7032, consumption: at least 0.60 kg/m².  Application as per the material manufacturer’s technical guidelines.  (See Triflex system drawing CPS-I+-1804) | \_\_\_\_\_\_ /m2 | \_\_\_\_\_\_\_\_\_ |
|  |  |  |  |  |  |
| 9.3 | \_\_\_\_\_ pc. |  | **Finishing of railing posts**  Finishing in the area of the rising railing posts with Triflex Pox Finish 173+, mixed with Triflex Powder Thixo.  Colour 7032, consumption: at least 0.60 kg/m².  Application as per the material manufacturer’s technical guidelines.  (See Triflex system drawing CPS-I+-1803)  Junction height: …… cm | \_\_\_\_\_ /pc. | \_\_\_\_\_\_\_\_\_ |
|  |  |  |  |  |  |
| 9.4 | \_\_\_\_\_ pc. |  | **Finishing of penetration**  Finishing in the area of the rising penetrations with Triflex Pox Finish 173+, mixed with Triflex Powder Thixo.  Colour 7032, consumption: at least 0.60 kg/m².  Application as per the material manufacturer’s technical guidelines.  (Corresponds to Triflex system drawing CPS-I+-1803)  Junction height: …… cm | \_\_\_\_\_ /pc. | \_\_\_\_\_\_\_\_\_ |
|  |  |  |  |  |  |
| 9.5 | \_\_\_\_\_\_ m² |  | **Finish of the surface**  Finishing of the surface with Triflex Pox Finish 173+.  Colour 7032, consumption: at least 0.60 kg/m².  Application as per the material manufacturer’s technical guidelines.  (See Triflex system drawing CPS-I+-1801) | \_\_\_\_\_\_ /m² | \_\_\_\_\_\_\_\_\_ |
|  |  |  |  |  |  |
| **10** |  |  | **Collision protection** |  |  |
|  |  |  |  |  |  |
| 10.1 | \_\_\_\_\_\_ m |  | **Protection from mechanical damage**  Insertion of stainless steel plates in Triflex Cryl Paste to protect the waterproofing from mechanical damage in areas at risk (kerb, thresholds or joints).  Processing: …… x …… cm  Application as per the material manufacturer’s technical guidelines.  (See Triflex system drawing CPS-I+-1804) | \_\_\_\_\_\_ /m | \_\_\_\_\_\_\_\_\_ |
|  |  |  |  |  |  |
| **11** |  |  | **Triflex Marking** |  |  |
|  |  |  |  |  |  |
| 11.1 | \_\_\_\_\_\_ m |  | **Thin layer of marking paint, parking bays**  Marking of parking bays with Preco Line 300. Width of outline: 10 cm incl. tape.  Consumption: at least 0.44 kg/m².  Application as per the material manufacturer’s technical guidelines, see Triflex DMS, version 3.  Colour: .................. at the discretion of the client. | \_\_\_\_\_\_ /m | \_\_\_\_\_\_\_\_\_ |
|  |  |  |  |  |  |
| 11.2 | \_\_\_\_\_ pc. |  | **Thin layer of marking paint, disabled parking bays**  Marking of disabled parking bays with Preco Line 300, incl. taping and, where required, provision of template.  Consumption: at least 0.44 kg/m².  Application as per the material manufacturer’s technical guidelines, see Triflex DMS, version 3.  Colour: .................. at the discretion of the client. | \_\_\_\_\_\_ /pc. | \_\_\_\_\_\_\_\_\_ |
|  |  |  |  |  |  |
| 11.3 | \_\_\_\_\_ pc. |  | **Thin layer of marking paint, directional arrows**  Marking of direction arrows with Preco Line 300, incl. taping and, where required, provision of template. To include the following arrows  - Straight: ………. pc.  - Left: ………. pc.  - Right: ………. pc.  Consumption: at least 0.44 kg/m².  Application as per the material manufacturer’s technical guidelines, see Triflex DMS, version 3.  Colour: .................. at the discretion of the client. | \_\_\_\_\_\_ /pc. | \_\_\_\_\_\_\_\_\_ |
|  |  |  |  |  |  |
| **12** |  |  | Hourly rates |  |  |
|  |  |  |  |  |  |
| 12.1 | \_\_\_\_\_\_ hrs. |  | Hourly rate of a foreman. | \_\_\_\_\_\_ /hr. | \_\_\_\_\_\_\_\_\_ |
|  |  |  |  |  |  |
| 12.2 | \_\_\_\_\_\_ hrs. |  | Hourly rate of a skilled worker. | \_\_\_\_\_\_ /hr. | \_\_\_\_\_\_\_\_\_ |
|  |  |  |  |  |  |
| 12.3 | \_\_\_\_\_\_ hrs. |  | Hourly rate of an assistant. | \_\_\_\_\_\_ /hr. | \_\_\_\_\_\_\_\_\_ |
|  |  |  |  |  |  |
| **13** |  |  | **Materials** |  |  |
|  |  |  |  |  |  |
| 13.1 | \_\_\_\_\_\_ kg |  | Material consumption upon proof. | \_\_\_\_\_\_ /kg | Unit price |
|  |  |  |  |  |  |
| **14** |  |  | **Disposal** |  |  |
|  |  |  |  |  |  |
| 14.1 | Lump sum |  | Disposal of all waste and hazardous waste materials in accordance with the current applicable laws and implementing regulations. | Lump sum | \_\_\_\_\_\_\_\_\_ |
|  |  |  |  |  |  |
|  |  |  | Net total: |  |  |
|  |  |  |  |  |  |
|  |  |  | Statutory VAT at \_\_\_\_% |  | \_\_\_\_\_\_\_\_\_ |
|  |  |  |  |  |  |
|  |  |  | Gross total: |  |  |