

## **Technical delivery conditions**

- 1, Product: Plate Radiators KORAD of types K, VK and VKM. Model types are shown in the technical documentation.
- 2, Producer: KORAD Radiators s.r.o., Vstupný areál U.S.Steel, 04454 Košice, Slovakia
- **3, Application:** KORAD steel panel radiators according to the types in point 1 and in the versions specified by the manufacturer, are intended for mass and individual construction, they are suitable for heating by forced or self-gravity circulation of a heat transfer medium up to a working pressure of 1.0 MPa. Treated water with a maximum operating temperature of 110 °C is used as the heat transfer medium. Radiators do not contain any harmful and dangerous substances, in terms of reaction to fire are classified in flammability class A1. Radiator types 10, 20, 30 are suitable for environments with higher hygienic demands, while their installation should comply with the relevant national regulations. Radiators with a Z surface treatment, on which a layer of zinc is applied by galvanizing before painting, are also suitable for environments with increased humidity.
- 4, Fixing and Installation: according to the Instruction Manual, see http://www.korad-radiators.sk
- **5, Delivery:** Radiators can be ordered based on the assortment of the current product catalog. The delivery document is a consignment note for the customer, on which the type and quantity of goods loaded on the means of transport is precisely specified. Steel panel radiators may only be transported in covered vehicles. The seller is obliged to hand over to the buyer the goods marked and equipped with all documents in accordance with INCOTERMS 2010. If the buyer is not present at the collection, the correctness of data is confirmed by the carrier (driver), who assumes responsibility for the goods until delivery to the buyer, unless is otherwise agreed in accordance with the international delivery conditions INCOTERMS 2010. Based on the contract and the loading list, an invoice is issued to the buyer. The buyer is obliged to take over the goods at the place of performance of the contract. Loss or damage to the goods, which occurred after the transfer of risk from the seller to the buyer does not entitle the buyer not to pay the purchase price. The delivery period agreed in the contract shall be extended by the time necessary to remove the obstacle to delivery if the seller did not cause this obstacle and is not responsible for it. The buyer is entitled to withdraw from the performance of the contract if the seller does not deliver the goods within the confirmed period and a reasonable additional period has elapsed. The additional period is 30 days from the day when the order should have been fulfilled according to the seller's confirmation. The buyer is not entitled to reimport and re-export the goods that are the subject of the confirmed order, only if the seller agrees.
- **6, Claims:** The buyer is obliged to inspect the goods or arrange for their inspection according to the circumstances, as soon as possible after delivery of the goods. If the buyer violates any of his duty of care for the goods during transport, storage, inspection or inspection under the provisions of the Contract, customer recommendations or related regulations, the seller reserves the right to reject claims for defects in goods caused by breach of such obligation. The buyer is obliged to notify the nature and specification of the occurrence of defects in the goods:

  a) in case of obvious errors of the goods as well as differences in the quantity of the goods without undue delay (maximum within 8 days) after the inspection of the goods.
- b) for all hidden defects of the goods and errors for which the seller provides the buyer with a quality guarantee, without undue delay after their discovery, but no later than within the period specified by law, for defects covered by the warranty during the warranty period. Any such notice shall be sent by courier, by registered mail or by any other appropriate means which guarantees confirmation of receipt by the

seller and shall include copies of the following documents and particulars:

- · Duplicate consignment notes (CMR, CIM, B / L),
- The number of the relevant Contract and the number of the relevant invoice,
- · Identification data of allegedly defective goods (pallet number, type, serial number label, claimed amount, etc.),
- A description of the errors, including their exact and complete photo documentation, including photo documentation of the damaged goods loaded on the relevant means of transport, if the error was detected during transport,
- The buyer made a preliminary estimate of the damage to the allegedly defective goods.
- **7, Guarantee:** The buyer is obliged to follow the seller's instructions. In the case of damage greater than two thousand EUR (EUR 2,000), the buyer is obliged to ensure the assessment of the damage by the emergency commissioner appointed by the seller. No claim for the goods entitles the buyer to refuse to make payment or to refuse to accept further deliveries from the seller. The buyer is obliged to store all goods for which he has a complaint against the seller, separately in its original condition, so that they can be inspected by the seller's representatives. Without the prior written consent of the seller, the buyer is not entitled to use or sell the claimed goods any such use or sale without the prior written consent of the seller will result in the goods being considered delivered without errors and in accordance with the Contract. The buyer is not entitled to compensation for defective goods, unless he has duly allowed the seller to inspect the goods or the claimed goods are not available for inspection. If the seller accepts the buyer's complaint, the seller is entitled to:
- (a) deliver the replacement or missing goods within a reasonable time; or
- (b) provide a reasonable discount to the price.

No quality claims are allowed for "not first class" goods or for goods "lower quality category".

## 8, Dimensions KORAD:

- **H** construction height of the body 300, 400, 500, 550, 600 and 900 mm
- L construction length of the body 400-3000 mm, graduated by 100 mm, type VK is produced in lengths from 400-3000 mm (400-2000 for models VKM), type 10 and 10 VK from the length of 500 mm, type 11K and 11 VK up to the length of 2000 mm
- h connecting spacing h=H-54 mm for all construction heights of type K
- connecting spacing h=50 mm for all construction heights of type VK and VKM lower connection **B** width of the body: see the **technical**

Heating surfaces, volumes, and weights of the body: see the technical documentation

- 9, Boundary deviations of dimensions: Boundary deviations of dimensions of radiators are given in the standard EN 442-2. Construction height:  $\pm 4/-2$  mm for construction heights H-600 and less,  $\pm 5/-2$  for H-900 mm; construction length:  $\pm 5$  mm for lengths of 1000 mm and less,  $\pm 0.5\%$  for lengths over 1000 mm; for depth:  $\pm 4/-3$  mm; for spacing of connecting elements:  $\pm 1$  mm and  $\pm 0.5$  mm for bodies of types VK.
- 10, Material of the body: The basic material for production of radiators is steel sheet DC01, cold rolled according to EN 10130+A1:2000 in a killed state. Dimensions according to STN 06 1122 and DIN EN 442-1. Mechanical values and chemical composition of the basic material in accordance with EN 10130+A1:2000.
- 11, Heating outputs: The measurement of heating outputs of radiators was performed in the testing laboratory of the Technical University of Stuttgart (DE) according to EN 442-2 and SZU Brno (CZ).

Tables of heating output values are given in the technical documentation.

- 12, Product description: Panel of radiator is welded from two pressings, on circumference, by a seam resistance weld and in vertical overlapping by a spot resistance weld. Type series, excluding types 10, 20 and 30 are equipped with additional heating surface that is spot welded on vertical ducts of radiator. For connecting the piping for inlet and outlet of heating medium there are four L-couplings welded to radiators of types 10 and 11K and four T-couplings welded to radiators of types 21K, 22K, 33K. In case of type VK there are two L- or T-couplings welded to panels of radiators and valve set with installed HEIMEIER or OVENTROP valve insert.
- **13. Connecting opening:** type K 4 x internal thread G1/2".

Type Ventil Kompakt 2x internal thread G1/2" for venting and blinding  $\pm 2x$  internal thread G1/2", spacing H=50 mm  $\pm 0.5$  mm

- **14, Surface quality of radiator:** The surface shall be smooth, moderate deformations of the sheet occurring during pressing process are allowed. The following repairs are also allowed:
- Repair of circumference welds
- Repair of spot welds
- Repair of welds of couplings
- Repair of welds of hanging mounting brackets ears
- Repair of welds of additional heating surface (convector)
- Repair of welds of spacer shims
- Repair of welds of valve sets
- Repair of unevenness and deformations
- 15, Design: Radiator is designed in such a way to meet safety and technical requirements:
- Closed frontal plates of **radiator** show on contact corners R>2 mm.
- Covers are fixed in a way allowing them to be released only by means of a **hand** tool. Openings in the cover are not wider than 8 mm on average.
- Upper edges of additional heating surfaces are covered. Lower edges do not have any burrs and do not overlap the shape of radiator.
- **16, Pressure test: Each radiator** is tested by the Producer to prove non-leakage and strength in unpainted condition, submerged in the water by means of compressed air at test pressure. Water is enriched with inhibitor reducing corrosive effects of surrounding environment. Working pressure is indicated on the ID labels placed on the back side of the radiators.
- **17, Testing pressure:** 1.3 MPa for working pressure of 1.0 MPa.
- 18, Surface finish: radiators are degreased, phosphated and coated with cataphoretic paint and finishing paint of electrostatically coated epoxypolyester powder of RAL 9016 shade. Finishing paint shall evenly cover the surface and in permanent use at the temperature of up to 110°C it shall not show any substantial change of color or surface. Adhesion of the paint is acceptable if minimum degree 2 is attained during the grid test according to STN EN ISO 2409. Hardness test of the paint is performed according to STN EN 13523-4.
- 19, Bulging: Erichsen bulging is performed according to DIN 53 156. The average value of bulging until cracks occur is minimum 2 mm.

## **Final Provisions**

The present Technical Delivery Terms become valid in Seller-Buyer relation as of the date the Contract or Purchase Agreement referring to them is signed. The change of Technical Delivery Terms is possible exclusively in writing upon the well-founded request of the Buyer or on the basis of the change of production parameters specified by the Producer.

Approved by: KORAD Radiators s.r.o.