

# Test Report

Report No: ZJZX20210812009C

Applicant Name : GUANGZHOU KINGA AUTOPARTS  
INDUSTRY MAUFACTURE CO., LTD.

Sample Name: Copper Oil Cooler OC02

Specification : /

Test Items: Performance Test

(Test Report Special Seal)



**Zhejiang Zhengxin Vehicle Inspection Co.,LTD**

2021-08-12

# Declaration

1. Our institution insures the equity, independence and honesty of the test. We are responsible for the data of the test, keep secret of the sample provided by the constituent and own the right of saving it.
2. This report has the assessor's or licenser's signature without edit artificially. It will be invalid without stampage of the special badge.
3. The constituent can put forward the problem to us within 15 days after he received the report if he doesn't satisfy with the report. It won't be dealt with if it exceeds the limit date.
4. If the testing sample is entrusted by third party, the testing center cannot guarantee the authenticity of the sample information. The testing result applies only to the test sample
5. Every page of the report is relative to each .We won't take the corresponding legal responsibility for the aftereffects which result from taking one from the report and causing other effects.

## Communication Address

**Company Address:** High-technology Industry District, Tiantai, Zhejiang,China.

**Zip code:** 317200

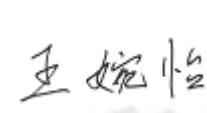
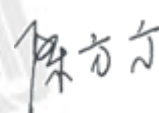
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# Test Report

|                        |                                                                                                                                                    |                                                                                 |                    |                        |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|--------------------|------------------------|
| Sample Information     | ERP                                                                                                                                                | /                                                                               | Sample Name        | Copper Oil Cooler OC02 |
|                        | Specification                                                                                                                                      | /                                                                               | Sample No.         | 20210804127Y           |
|                        | Quantity                                                                                                                                           | 1                                                                               | Supplier           | /                      |
|                        | Production Unit                                                                                                                                    | /                                                                               | Sample Description | /                      |
|                        | Batch Number/<br>Production Date                                                                                                                   | /                                                                               |                    |                        |
| Applicant Name         | Name                                                                                                                                               | GUANGZHOU KINGA AUTOPARTS INDUSTRY MAUFACTURE CO., LTD.                         |                    |                        |
|                        | Address                                                                                                                                            | No. 998 Guangcongnan Road, Kinga Auto Parts Industrial Park, Conghua, Guangzhou |                    |                        |
| Sample Received        | 2021-08-09                                                                                                                                         |                                                                                 | Test Date          | 2021-08-09             |
| Temperature            | 30.2°C                                                                                                                                             |                                                                                 | Humidity           | 71%RH                  |
| Test Items             | Performance Test                                                                                                                                   |                                                                                 |                    |                        |
| Main Testing Equipment | Equipment Name/Model                                                                                                                               | Rig No                                                                          | Equipment Validity |                        |
|                        | 3# Oil cooler performance rig /ZJZXC007                                                                                                            | ZX-529-007                                                                      | 2021-11-13         |                        |
| Test Criteria          | 1.Order Number: ZX20210804042<br>2. JB/T11326-2013 Internal combustion engines-Concentric oil coolers-Specifications                               |                                                                                 |                    |                        |
| Test Result            | /<br>(Test Report Special Seal)<br>Issue Date: 2021-08-12<br> |                                                                                 |                    |                        |
| Notes                  | Media of oil side: CD 15W-40 Media of coolant side: water                                                                                          |                                                                                 |                    |                        |

Editor:  Auditor:  Approved by: 

Description of the test results:

| Item Name        | Quality Index                                                                                                                                           | Test Result      |
|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
|                  |                                                                                                                                                         | Sample Number    |
|                  |                                                                                                                                                         | 20210804127Y     |
| Performance test | Coolant temperature at inlet: 80°C, oil temperature at inlet: 110°C, volume flow of coolant side: 40L/min, volume flow of oil side: (3, 5, 8, 10)L/min. | Reference Form 1 |

Form 1: Test results

|                                      |        |        |        |        |
|--------------------------------------|--------|--------|--------|--------|
| 20210804127Y                         | 1      | 2      | 3      | 4      |
| Oil temperature at inlet (°C)        | 110.08 | 109.98 | 110.13 | 109.78 |
| Oil temperature at outlet (°C)       | 102.28 | 104.51 | 105.28 | 105.34 |
| Coolant temperature at inlet (°C)    | 79.87  | 79.79  | 79.93  | 79.59  |
| Oil volume flow (L/min)              | 3.10   | 5.10   | 8.00   | 10.05  |
| Coolant volume flow (L/min)          | 39.86  | 40.06  | 39.89  | 39.90  |
| Oil heat rejection (W)               | 775    | 897    | 1250   | 1436   |
| Conversion of oil heat rejection (W) | 770    | 891    | 1241   | 1427   |
| Pressure drop of oil side (kPa)      | 19.61  | 33.15  | 58.69  | 79.43  |
| Pressure drop of coolant side (kPa)  | 1.28   | 1.20   | 1.31   | 1.28   |

Figure 1: Test sample



Figure 2: Mounting Method



END