



TEST REPORT

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CUSTOMER NAME: CHANGSHA XIANGJIA METAL MATERIAL TRADING CO.,LTD
ADDRESS: 16F, MINGCHENG INTL BLDG,CHANGSHA,HUNAN,CHINA

Sample Name : Alumina beam
Product Specification : 122*75
Material : 6061T6

Above information and sample(s) was/were submitted and confirmed by the client. SGS, however, assumes no responsibility to verify the accuracy, adequacy and completeness of the sample information provided by client.

Date of Receipt : 2024-08-19
Testing Period : 2024-08-19 ~ 2024-08-27
Test result(s) : For further details, please refer to the following page(s)
(Unless otherwise stated the results shown in this test report refer only to the sample(s) tested)

Signed for
SGS-CSTC Standards Technical
Services (Tianjin) Co., Ltd.

Duke Gai

Duke Gai
Authorized signatory



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Summary of Results:

No.	Test Item	Test Method	Result	Conclusion
1	Three-point bending test	Client's requirement	See Result	N/A
2	Four-point bending test	Client's requirement	See Result	N/A

Note: Pass : Meet the requirements;
Fail : Does not meet the requirements;
N/A : Not Apply to the judgment.



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1. Test Item: Three-point bending test

Test Method: Client's requirement

Sample Description: Alumina beam 122*75*1807mm, 1pc

Test procedure:

As shown in the following figure 1, place the sample horizontally on two support bar of which the diameter is 48.3mm as per client's requirement, apply a line load to the mid-span at a rate of 10 mm/min through a 48.3mm load bar across the whole width, the test span L is 1200mm.

Stop the load test when the sample is broken or the load cannot be increased usefully, record the maximum load and the relevant deformation under this load. Calculate the bending moment.

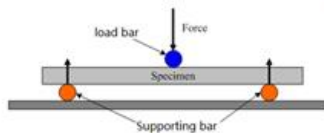


Figure 1 Three-point bending test

Test Result:

Test Item	Test span L(mm)	Maximum load Fmax (kN)	Deformation (mm)	Bending moment Mmax (kNm)	Failure mode
Three-point bending test	1200	23.172	11.32	6.95	The sample showed visible deformation



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2. Test Item: Four-point bending test

Test Method: Client's requirement

Sample Description: Alumina beam 122*75*1807mm, 1pc

Test procedure:

As shown in the following figure 2, place the sample horizontally on two support bar of which the diameter is 48.3mm as per client's requirement, apply a pair of line load at L/2 both side far from the mid-span at a rate of 10 mm/min through two 48.3mm load bars across the whole width, the test span L is 1200mm.

Stop the load test when the sample is broken or the load cannot be increased usefully, record the maximum load and relevant deformation under this load.

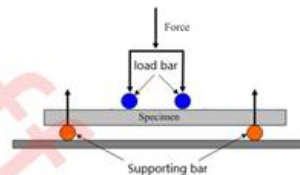


Figure 2 Four-point bending test

Test Result:

Test Item	Test span L(mm)	Maximum load Fmax (kN)	Deformation (mm)	Failure mode
Four-point bending test	1200	25.107	11.59	The sample showed visible deformation



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Original Sample Photo:



Testing Photo



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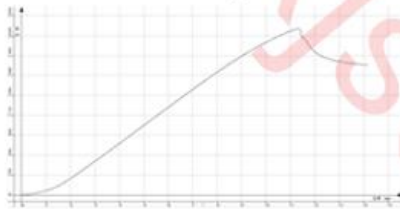
After Testing Photo



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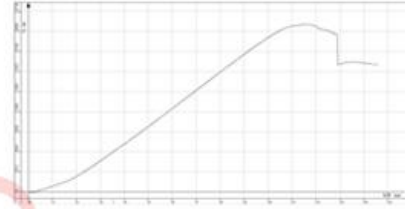
Load-deformation curve of Three-point bending test



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Load-deformation curve of Four-point bending test

The test report shall only be used for clients' scientific research, teaching, internal quality control, product research and development, etc. and just for internal reference.

-----End of report-----

