

The title starting from the third line
Arial or Helvetica in all capital letters,
14pt, centered, within 130 letters

① The top margins are 25mm

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Write "- Technical Paper -" or
"- Technical Report -" in Italic typeface

TEMPLATE OF MICROSOFT WORD FORMAT FOR JCI ANNUAL CONVENTION PROCEEDINGS

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The left and right margins are 22 mm

Arial or Helvetica in all capital letters 10pt, centered

ABSTRACT

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should be typed in all capitals

Braided aramid fiber bar is used in pretensioned bond test. Local bond stress were obtained from the strain distribution along the embedded bar. The embedded length was made large enough not to cause strain change at center of specimen. The local bond stress-slip relationship of braided aramid fiber bar varies. In pretensioned bond test, a pull bond test with a pullout test with short embedment. The effect of concrete strength on the local bond stress-slip relationship differs with test method.

Keywords: aramid fiber, bond stress, pretensioned bond test, concrete strength, bond test

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Not more than 2 lines,
below the abstract

1. INTRODUCTION

Continuous fiber reinforcing materials such as braided aramid fiber bar and carbon fiber strand are going to be applied to concrete structures [1]. A design concept of concrete structures reinforced or prestressed with continuous fiber reinforcing materials has already been reported by JSCE committee [2]. However, bond characteristics between the reinforcing materials and concrete have not been clarified yet.

↔ In the bond characteristics, a local bond stress-slip relationship is the most basic law for representing interaction between

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References are indicated
consecutive numbers in brackets

2. TEST PROGRAMS

2.1 Materials

(1) Reinforcing materials Braided aramid fibers with nominal diameters of 0.15 mm and 0.2 mm are used. The characteristics of the reinforcements are shown in Table 1.

(2) Concrete

The specified concrete strength is 30MPa using maximum 20mm of coarse aggregate size and compressive strength and splitting tensile strength at 28 days are 33.2MPa and 2.56MPa, respectively.

Table 1 Characteristics of reinforcements

Type	Elastic Modulus (kN/mm ²)	Tensile strength (N/mm ²)	
Braided	59	130	Stirrup
Braided	59	1320	Tendon
Deformed	178	684	Stirrup
Deformed	200	994	Tendon

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2.2 Loading Method

The specimens are subjected to monotonic pull out load using.....

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the second level headings

Enough spacing between
the text and illustrations

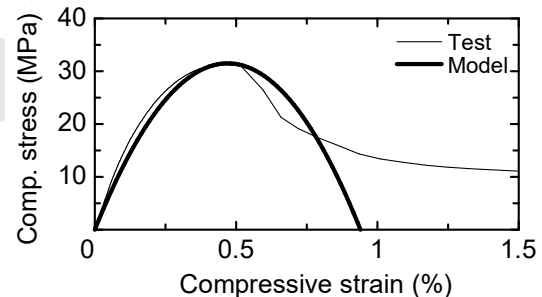


Fig.1 Stress - strain curves

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typed below the figure and photo

① The bottom margins are 20mm, nothing in the header or footer

Indent 5 spaces

The sectional area is given as follows:

②① $\longleftrightarrow A = V / l_0$ ②① (1)

where,

A : sectional area
 V : volume
 l_0 : length

Numbered in the right margin

The volume is obtained by measurements of test piece
.....

①②

Leave one line space above and below the major headings

3. CONCLUSIONS

- (1) Local bond stress-slip relationship of braided

aramid fiber is

- (2) The specified concrete strength is 30MPa using maximum 20mm of coarse aggregate size and compressive strength and splitting tensile strength.

ACKNOWLEDGEMENT

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Nanboku University.
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Not numbered, must be centered

REFERENCES

- [1] Davis, J. M., "Simplified Diaphragm Analysis," Journal of Structural Div., ASCE, Vol. 103, Nov. 1977, pp. 2098-2109.
- [2] Shanley, F. R., "Basic Structures," John Willey & Sons Inc., 1947, pp. 291-314.

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Allowed to use abbreviations of academic societies