

工程指示 / 要求簡箋 ENGINEER INSTRUCTIONS(E.I.)

工程指示編號:	EI-5779	修改版本:	-
	[Signature]		
工程編號:	J 856	工程名稱:	天榮站
收件人:	Maggie Lor	發件人:	Lai Sik Hung
工程項目:	Welding Procedure & Welder's Qualification Test Cert. (Curtain Wall)	日期:	27/02/2023

<input type="checkbox"/> 原合約工程包	<input type="checkbox"/> 原合約工程加 / 減賬 QT-	<input type="checkbox"/> 新工程報價 QT-
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信件批核號碼/圖紙參考編號:	批核模具圖紙編號:
客戶指示附件:	管理內部批簽署:

<input type="checkbox"/> 初步鋁料 B.M.	<input type="checkbox"/> 加工拆圖, 然後生產	<input type="checkbox"/> 尺寸表
<input type="checkbox"/> 正式鋁料 B.M.	<input type="checkbox"/> 技術上資料/指示	<input type="checkbox"/> 報價
<input type="checkbox"/> 配件 B.M.	<input type="checkbox"/> 樣辦或貨品說明書	<input type="checkbox"/> 分判合約
<input type="checkbox"/> 其他:		

內容: 現須按附件批則信提供以下資料 (Curtain Wall):

1. Welding Procedure Qulification Record
2. Welder's Qulification Test Certificate
3. Preliminary Welding Procedure Specification

Test Location : 天榮站地盤
判頭1個, 預師傅2個,
地盤聯絡人: 向玉芳 5132 9236

完成上列要求日期: 15/03/2023

國內

<input type="checkbox"/> 生產技術總監	<input type="checkbox"/> 連附件	<input type="checkbox"/> 技術部	<input type="checkbox"/> 連附件	<input type="checkbox"/> 生產部	<input type="checkbox"/> 連附件
<input type="checkbox"/> 採購部	<input type="checkbox"/> 連附件	<input type="checkbox"/> 生產統籌部	<input type="checkbox"/> 連附件	<input type="checkbox"/> 報關組	<input type="checkbox"/> 連附件
<input type="checkbox"/> 質檢部	<input type="checkbox"/> 連附件	<input type="checkbox"/> 會計部	<input type="checkbox"/> 連附件	<input type="checkbox"/> 機械設計部	<input type="checkbox"/> 連附件
<input type="checkbox"/> 香港辦	<input type="checkbox"/> 連附件	<input type="checkbox"/> 其他:			

<input type="checkbox"/> 行政部	<input type="checkbox"/> 連附件	<input type="checkbox"/> 會計部	<input type="checkbox"/> 連附件	<input type="checkbox"/> 統籌部	<input type="checkbox"/> 連附件	<input type="checkbox"/> 工程部	<input type="checkbox"/> 連附件
<input checked="" type="checkbox"/> 採購部	<input checked="" type="checkbox"/> 連附件	<input type="checkbox"/> QS部	<input type="checkbox"/> 連附件	<input type="checkbox"/> 地盤管理	<input type="checkbox"/> 連附件	<input type="checkbox"/> 維修部	<input type="checkbox"/> 連附件

*發件人簽署:	[Signature]	*組別成員批核簽署:	[Signature] 27/2/2023
傳遞編號:		項目經理簽署:	[Signature]



01 MAR 2019

Date rec'd	Action	Conv
Kelvin Lam		
Stephen Chiu		
K S Lau		
Kevin Lam		
C W Wu		
Ricky Leung		
Ernest Chan		
Kelvin Chan		
Teddy Siu		
Douglas Tsang		
Julian Yeung		
Larry Lam		
Chau Pak Ki		
Project Team		

YOUR REF 來函檔號 :
 OUR REF 本署檔號 : **BD 3/7601/09(Pt.VII)**
 FAX 圖文傳真 : **2973 0561**
 TEL 電話 : **3104 2583**
 www.bd.gov.hk

LAU Chi-kin
 22nd Floor,
 Sun Hung Kai Centre,
 30 Harbour Road,
 Wanchai, Hong Kong

25 February 2019

02 Robert Sang
 AP
 Michael Ku
 Kelvin Lam
 Robert Lam

OK Lan
 5/2

231

Dear Sir,

**Property Development above LRT Terminus,
 TSWTL23, Area 33, Tin Shui Wai, N.T. -
 TSWTL 23**

I refer to your application dated received on 28 December 2018, for approval of proposals in respect of Superstructure – Curtain Wall.

2. Your submission of plans has been checked under the curtailed check system announced in Practice Note for Authorized Persons, Registered Structural Engineers and Registered Geotechnical Engineers ADM-19. On this basis, I am satisfied that your submission is fundamentally acceptable and may be approved.

3. You are reminded that the curtailed check system covers only the fundamental issues of a building proposal. Although non-fundamental issues will not be raised as reasons for disapproving a submission, I expect that all contraventions of the Buildings Ordinance and its subsidiary legislation are rectified as and when they are discovered and in any event, before completion of the works is certified. In this connection, I ask you to note that the Building Authority attaches great importance to the proper assumption of duties and responsibilities by authorized persons and registered structural engineers.

4. In accordance with the provisions of regulation 30(1) of the Building (Administration) Regulations, this is to notify that the above - mentioned plans submitted with your application dated received on 28 December 2018 are hereby approved. One set of the said plans, on which I have signified my approval, is enclosed. Your client has been sent a copy of this letter but I would request that you ensure that the contents are understood by him.

5. This approval should not be deemed to confer any title to land or to act as a waiver of any term in any lease or licence. This approval does **NOT** authorize the commencement or the carrying out of any works shown in the approved plans. Section 14(2) of the Buildings Ordinance refers.

c.c. **MTR Corporation Limited**
MTR Headquarters Building,
19/F, Telford Plaza,
Kowloon Bay, Kowloon

AP - LIANG Ronald
15/F., North Tower,
World Finance Centre,
Harbour City, Tsim Sha Tsui,
Kowloon.

CO/SM

Yours sincerely,

(LI Kwok-leung)
 Chief Structural Engineer
 for Building Authority

Ref : BD 3/7601/09(Pt.VII)

Address : Property Development above LRT Terminus, TSWTL23, Area 33, Tin Shui Wai,
N.T. - TSWTL 23

Appendix I to approval dated 25 February 2011

Structural Steel Works

In giving this approval of plans, I hereby impose the following conditions under item 6 in section 17(1) of the Buildings Ordinance:

- (a) For welding of structural steel works, welding procedures and welders should be assessed/tested in accordance with the appropriate provisions of the Annex A to the Code of Practice for the Structural Use of Steel 2011.
- (b) Non-destructive testing of welds should be carried out in accordance with the appropriate provisions of the Code of Practice for the Structural Use of Steel 2011 and by a laboratory* accredited under the Hong Kong Laboratory Accreditation Scheme (HOKLAS) or by other laboratory accreditation bodies which have reached mutual recognition agreements/arrangements with HOKLAS for the particular test concerned. The test reports[@] shall be endorsed by Registered Structural Engineer and kept on site for inspection by representatives of the Buildings Department.

2. The following conditions in respect of qualified supervision of works are imposed under item 6 in section 17(1) of the Buildings Ordinance:

- (a) Qualified site supervision of the structural steel works, including fabrication, erection and examination of the structural elements, by experienced and competent persons as defined in (b) and (c), should be provided to ensure that the works are carried out in accordance with the plans approved and that the required standards are complied with.
- (b) The Registered Structural Engineer should assign a quality control supervisor to supervise the works, determine the necessary frequency of inspection by the quality control supervisor which should not be less than once a week, and devise inspection check lists. The minimum qualifications and experience of the quality control supervisor is to be the same as the Technically Competent Person of grade T3, as stipulated in the Code of Practice for Site Supervision 2009.
- (c) The Registered General Building Contractor/Registered Specialist Contractor should assign a quality control co-ordinator to provide full time on site supervision of the works and devise inspection check lists. The minimum qualifications and experience of the quality control co-ordinator is to be the same as the Technically Competent Person of grade T1, as stipulated in the Code of Practice for Site Supervision 2009.

- (d) The names and qualifications of the supervisory personnel representing the Registered Structural Engineer and the Registered General Building Contractor/Registered Specialist Contractor respectively should be recorded in an inspection log book. The date, time, items inspected and inspection results should be clearly recorded in the log book. The log book should be kept on site for inspection by representatives of the Buildings Department.

3.# Under Building (Administration) Regulation 10, the following documents are required to be submitted for structural steel of Classes 1, 2 or 1H classified in accordance with the Code of Practice for the Structural Use of Steel 2011:

A copy of mill certificates of the structural steel used, which should be submitted within 60 days of the delivery of the structural steel to the site and appended with a statement signed by the Registered Structural Engineer to confirm that the requirements of chemical composition and mechanical properties appropriate to the class and grade of steel have been complied with and the structural steel used is produced from a manufacturer with an acceptable Quality Assurance system.

4.# Where structural steel of Classes 2, 3 or 1H is used, the following conditions are imposed under item 6 in section 17(1) of the Buildings Ordinance:

Sampling and testing of structural steel should be carried out in accordance with Annex D to the Code of Practice for the Structural Use of Steel 2011. Testing should be carried out by a laboratory* accredited under HOKLAS or by other laboratory accreditation bodies which have reached mutual recognition agreements/arrangements with HOKLAS for the particular test concerned. The test results[@] should be appended with a statement signed by the Registered Structural Engineer and submitted within 60 days of the delivery of the structural steel to the site for confirmation of the followings:

- (i) All structural steel used for the construction and the test specimens covered by the test reports are in accordance with the classes and grades of steel shown in the approved plans.
- (ii) Sampling and testing of structural steel used have been carried out in accordance with the Code of Practice for the Structural Use of Steel 2011.
- (iii) The acceptance criteria appropriate to each class and grade of steel used have been complied with.
- (iv) Testing of steel has been carried out by a laboratory* accredited under HOKLAS or by other laboratory accreditation bodies which have reached mutual recognition agreements/arrangements with HOKLAS.

Delete wherever inapplicable

* A Directory of Accredited Laboratories in Hong Kong is obtainable from the Hong Kong Accreditation Service (HKAS) Executive, Innovation and Technology Commission.

A laboratory's accreditation for an individual test or calibration may be granted, modified or withdrawn at any time. Up-to-date information on accredited laboratories and their scopes of accreditation are available on the internet at the HKAS website at <http://www.info.gov.hk/itc/hkas/>.

- @ The test carried out by an accredited laboratory should be within its scope of accreditation. Test results should be reported on a HOKLAS Endorsed Certificate or equivalent Certificate/Report issued from other laboratory accreditation bodies which have reached mutual recognition agreements/arrangements with HOKLAS.

B. D. AMENDMENT

The notes shown on these plans are type B works. Superstructure (Curtain Wall) in respect of which consent is applied for the purpose of the First Review consent application under regulation 9 of the Building (Administration) Regulations.

REV	DESCRIPTION	DATE	BY
C	4th BD AMENDMENT	2022-10-31	CF
B	3rd BD AMENDMENT	2022-06-24	A
A	2nd BD AMENDMENT	2022-05-18	A
-	1st BD SUBMISSION	2019-11-18	-

SUN HUNG KAI REAL ESTATE AGENCY LTD.

lwk&partners architects

ARUP

SUN HUNG KAI ARCHITECTS AND ENGINEERS LTD.

ALPHA CONSULTING ALPHA STRUCTURE & FADEE ENGINEERING LTD.

YEE FAI CONSTRUCTION CO., LTD.

美特經貿有限公司 (MIDI) ALUMINIUM FABRICATOR LTD.

PROPOSED COMPREHENSIVE DEVELOPMENT AT LRT TIN WING STOP AT TIN SHUI WAI ON LOT NO. TSWTL23

GENERAL NOTES FOR TOWER CURTAIN WALL

SCALE: N.T.S. DATE: 2018-11-18

DRAWN BY: KF CHECKED BY: JH

JOB NO.: J6371

RSE: (FOR SIGNATURE)

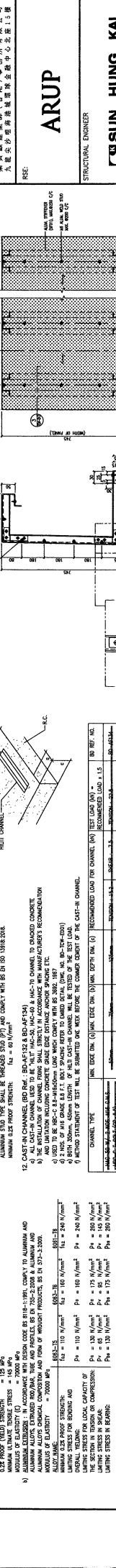
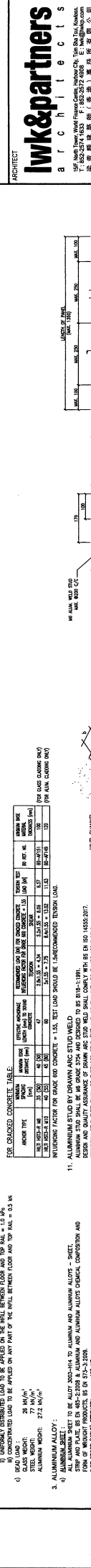
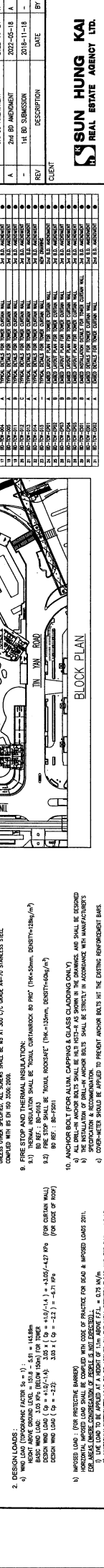
PROJECT: TOWER CURTAIN WALL

REVISION: C

BD-TCW-GN01

GENERAL NOTES FOR TOWER CURTAIN WALL (TOWER 1,2,3) (3/F-R/F)

- DESIGN CODES:**
 - 1) BUILDING (CONSTRUCTION) REGULATIONS (KONG KONG)
 - 2) CODE OF PRACTICE FOR THE STRUCTURAL USE OF STEEL 2011 (HONG KONG)
 - 3) CODE OF PRACTICE FOR WIND EFFECTS IN WINDY AREAS 2018 (HONG KONG)
 - 4) CODE OF PRACTICE FOR BEAM AND IMPOSED LOADS 2011 - 1981 (HONG KONG) (ADVICE COMPANY TO TWP APP-3)
 - 5) CODE OF PRACTICE FOR STRUCTURAL USE OF GLASS 2011 - 1981 (HONG KONG) (ADVICE COMPANY TO TWP APP-3)
 - 6) STRUCTURAL DESIGN FOR STAINLESS STEEL, THE STEEL CONSTRUCTION INSTITUTE PUBLICATION P201 (PUBLISHED 2002)
- DESIGN LOADS:**
 - 1) WIND LOADS (FOR PROTECTIVE BARRELS)
 - a) WIND SPEED FACTOR $S_f = 1.5$
 - b) WIND SPEED $V = 45 \text{ m/s}$
 - c) BASIC WIND LOAD $W = 1.5 \times 1.5 \times 0.61 \times 45^2 = 143.8 \text{ kN/m}^2$
 - d) WIND LOAD $W = 143.8 \times 1.0 \times 1.0 = 143.8 \text{ kN/m}^2$ (FOR CURTAIN WALL)
 - e) WIND LOAD $W = 143.8 \times 1.0 \times 1.0 = 143.8 \text{ kN/m}^2$ (FOR DOCK OF ROOF)
 - f) WIND LOAD $W = 143.8 \times 1.0 \times 1.0 = 143.8 \text{ kN/m}^2$ (FOR DOCK OF ROOF)
 - 2) UNIFORMED LOAD: $U = 2.5 \text{ kN/m}^2$
 - 3) DEAD LOAD: $D = 15 \text{ kN/m}^2$
 - 4) ALUMINIUM ALLOY:
 - a) ALUMINIUM SHEET: 272 N/mm^2
 - b) ALUMINIUM ALLOY: 272 N/mm^2
- ALUMINIUM ALLOY:**
 - 1) ALL PARTS TO BE ALUMINIUM AND ALUMINIUM ALLOY CHEMICAL COMPOSITION AND STATE
 - 2) TYPE OF WELDING PRODUCTS: BS EN 573-3:2008
 - 3) WELDING PROCEDURE: BS EN 573-3:2008
 - 4) WELDING STRESS IN SHEAR: $P_s = 125 \text{ N/mm}^2$
 - 5) WELDING STRESS IN TENSION: $P_t = 125 \text{ N/mm}^2$
 - 6) WELDING STRESS IN BENDING: $P_b = 125 \text{ N/mm}^2$
 - 7) WELDING STRESS IN SHEAR: $P_s = 125 \text{ N/mm}^2$
 - 8) WELDING STRESS IN TENSION: $P_t = 125 \text{ N/mm}^2$
 - 9) WELDING STRESS IN BENDING: $P_b = 125 \text{ N/mm}^2$
- STRUCTURAL MILD STEEL AND FINISH:**
 - 1) ALL MILD STEEL SHALL BE GRADE S235 (CLASS 1) TO CODE OF PRACTICE FOR THE STRUCTURAL USE OF STEEL 2011 (HONG KONG)
 - 2) WELDING PROCEDURE: BS EN 573-3:2008
 - 3) WELDING STRESS IN SHEAR: $P_s = 125 \text{ N/mm}^2$
 - 4) WELDING STRESS IN TENSION: $P_t = 125 \text{ N/mm}^2$
 - 5) WELDING STRESS IN BENDING: $P_b = 125 \text{ N/mm}^2$
- GLASS:**
 - 1) GLASS SHALL BE 10mm THICK THERMOPLASTIC GLASS WITH 10mm THICK (EMBEDDED GLASS)
 - 2) GLASS SHALL BE 10mm THICK THERMOPLASTIC GLASS WITH 10mm THICK (EMBEDDED GLASS)
 - 3) GLASS SHALL BE 10mm THICK THERMOPLASTIC GLASS WITH 10mm THICK (EMBEDDED GLASS)
 - 4) GLASS SHALL BE 10mm THICK THERMOPLASTIC GLASS WITH 10mm THICK (EMBEDDED GLASS)
 - 5) GLASS SHALL BE 10mm THICK THERMOPLASTIC GLASS WITH 10mm THICK (EMBEDDED GLASS)
- WELDING FOR STRUCTURAL STEEL:**
 - 1) ALL WELDS SHALL BE WELDED TO BS EN 1014:2004
 - 2) ALL WELDS SHALL BE WELDED TO BS EN 1014:2004
 - 3) ALL WELDS SHALL BE WELDED TO BS EN 1014:2004
 - 4) ALL WELDS SHALL BE WELDED TO BS EN 1014:2004
 - 5) ALL WELDS SHALL BE WELDED TO BS EN 1014:2004
- SILICONE SEALANT, GASKET & SETTING BLOCK:**
 - 1) ALL SILICONE SEALANT SHALL BE USED AS STRUCTURAL GASKET SEALANT (BS EN 1014:2004)
 - 2) ALL SILICONE SEALANT SHALL BE USED AS STRUCTURAL GASKET SEALANT (BS EN 1014:2004)
 - 3) ALL SILICONE SEALANT SHALL BE USED AS STRUCTURAL GASKET SEALANT (BS EN 1014:2004)
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 - 5) ALL SILICONE SEALANT SHALL BE USED AS STRUCTURAL GASKET SEALANT (BS EN 1014:2004)
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- TABLE 100 (FOR USE IN CLASS 100)**



NO.	DESCRIPTION	REMARKS
1	MINIMUM TENSILE STRENGTH, $P_t = 450 \text{ N/mm}^2$	
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47	MINIMUM TENSILE STRENGTH, $P_t = 450 \text{ N/mm}^2$	
48	MINIMUM TENSILE STRENGTH, $P_t = 450 \text{ N/mm}^2$	
49	MINIMUM TENSILE STRENGTH, $P_t = 450 \text{ N/mm}^2$	
50	MINIMUM TENSILE STRENGTH, $P_t = 450 \text{ N/mm}^2$	
51	MINIMUM TENSILE STRENGTH, $P_t = 450 \text{ N/mm}^2$	
52	MINIMUM TENSILE STRENGTH, $P_t = 450 \text{ N/mm}^2$	
53	MINIMUM TENSILE STRENGTH, $P_t = 450 \text{ N/mm}^2$	
54	MINIMUM TENSILE STRENGTH, $P_t = 450 \text{ N/mm}^2$	
55	MINIMUM TENSILE STRENGTH, $P_t = 450 \text{ N/mm}^2$	
56	MINIMUM TENSILE STRENGTH, $P_t = 450 \text{ N/mm}^2$	
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58	MINIMUM TENSILE STRENGTH, $P_t = 450 \text{ N/mm}^2$	
59	MINIMUM TENSILE STRENGTH, $P_t = 450 \text{ N/mm}^2$	
60	MINIMUM TENSILE STRENGTH, $P_t = 450 \text{ N/mm}^2$	
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64	MINIMUM TENSILE STRENGTH, $P_t = 450 \text{ N/mm}^2$	
65	MINIMUM TENSILE STRENGTH, $P_t = 450 \text{ N/mm}^2$	
66	MINIMUM TENSILE STRENGTH, $P_t = 450 \text{ N/mm}^2$	
67	MINIMUM TENSILE STRENGTH, $P_t = 450 \text{ N/mm}^2$	
68	MINIMUM TENSILE STRENGTH, $P_t = 450 \text{ N/mm}^2$	
69	MINIMUM TENSILE STRENGTH, $P_t = 450 \text{ N/mm}^2$	
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73	MINIMUM TENSILE STRENGTH, $P_t = 450 \text{ N/mm}^2$	
74	MINIMUM TENSILE STRENGTH, $P_t = 450 \text{ N/mm}^2$	
75	MINIMUM TENSILE STRENGTH, $P_t = 450 \text{ N/mm}^2$	
76	MINIMUM TENSILE STRENGTH, $P_t = 450 \text{ N/mm}^2$	
77	MINIMUM TENSILE STRENGTH, $P_t = 450 \text{ N/mm}^2$	
78	MINIMUM TENSILE STRENGTH, $P_t = 450 \text{ N/mm}^2$	
79	MINIMUM TENSILE STRENGTH, $P_t = 450 \text{ N/mm}^2$	
80	MINIMUM TENSILE STRENGTH, $P_t = 450 \text{ N/mm}^2$	
81	MINIMUM TENSILE STRENGTH, $P_t = 450 \text{ N/mm}^2$	
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83	MINIMUM TENSILE STRENGTH, $P_t = 450 \text{ N/mm}^2$	
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85	MINIMUM TENSILE STRENGTH, $P_t = 450 \text{ N/mm}^2$	
86	MINIMUM TENSILE STRENGTH, $P_t = 450 \text{ N/mm}^2$	
87	MINIMUM TENSILE STRENGTH, $P_t = 450 \text{ N/mm}^2$	
88	MINIMUM TENSILE STRENGTH, $P_t = 450 \text{ N/mm}^2$	
89	MINIMUM TENSILE STRENGTH, $P_t = 450 \text{ N/mm}^2$	
90	MINIMUM TENSILE STRENGTH, $P_t = 450 \text{ N/mm}^2$	
91	MINIMUM TENSILE STRENGTH, $P_t = 450 \text{ N/mm}^2$	
92	MINIMUM TENSILE STRENGTH, $P_t = 450 \text{ N/mm}^2$	
93	MINIMUM TENSILE STRENGTH, $P_t = 450 \text{ N/mm}^2$	
94	MINIMUM TENSILE STRENGTH, $P_t = 450 \text{ N/mm}^2$	
95	MINIMUM TENSILE STRENGTH, $P_t = 450 \text{ N/mm}^2$	
96	MINIMUM TENSILE STRENGTH, $P_t = 450 \text{ N/mm}^2$	
97	MINIMUM TENSILE STRENGTH, $P_t = 450 \text{ N/mm}^2$	
98	MINIMUM TENSILE STRENGTH, $P_t = 450 \text{ N/mm}^2$	
99	MINIMUM TENSILE STRENGTH, $P_t = 450 \text{ N/mm}^2$	
100	MINIMUM TENSILE STRENGTH, $P_t = 450 \text{ N/mm}^2$	

