



PRECASTER ACCREDITATION SCHEME

Singapore Concrete Institute
Blk 342 Ang Mo Kio Ave 1
#03-1563 Singapore 560342

APPLICATION FORM

INSTRUCTIONS

1. Please refer to the Precaster Accreditation Scheme Criteria & Grading Schedule in **Annex 1** to check your category grading criteria and requirements.
2. Please refer **Annex 2 for applicable fees** for plant/factory in Singapore. For plant/factory outside Singapore, a quotation from the Singapore Concrete Institute (SCI) will be given to the applicant upon receipt of the completed application form.
3. For processing your application, please submit the application form together with the relevant supporting documents. Refer **Annex 2 for "Checklist for Application"**.
4. For enquiries, please contact **Ms Edina Koh (Tel: 6552 0674, email: edina@scinst.org.sg)**.

DECLARATION BY APPLICANT

I, _____ (Name in Block Letters) _____ (NRIC/FIN No.)
do solemnly and sincerely declare that the facts contained in the documents in this application are true in substance to the best of my knowledge, information and belief and I make this solemn declaration conscientiously believing the same to be true. I authorize the Singapore Concrete Institute (SCI) to conduct any enquiries and audits for the particulars furnished herein as SCI deems fit, and accept that neither the SCI nor representatives shall be held liable for any loss, injury or damages howsoever caused by the SCI's processing of and decision on this application.

By submitting this application, I agree that the Singapore Concrete Institute (SCI) may collect, use, process and disclose information for the purposes of administering the Precaster Accreditation Scheme and all other actions necessary in relation to the scheme in accordance with the Personal Data Protection Act 2012. I understand that Singapore Concrete Institute (SCI) may disclose information to other third parties where necessary for the purposes of administering this application.

I, authorize _____ (Name & Designation of Contact Person)
to provide any additional information required by the SCI. I understand that false declaration or false information provided may result in rejection to this application.

Authorized Signature & Company Stamp

Designation

Date

For Official Use Only

Ref. No:

Date Received:

Fees Received:

SECTION A: APPLICATION					Please select Category					
Please tick on your choice of application Type (1), (2) or (3) in your selected category:					PC1A	PC1	PC2	PC3		
(1) New application; or										
(2) Renewal application for existing SCI Accredited Precaster										
(3) Re-audit										
Please tick on the product group (Please refer to Product Range in Annex 1)				GS1	GS2	GS3	GC1	GC2	GA	PPVC
Is your firm currently registered as SCI corporate member? (*Pls delete accordingly)								*Yes / No		
Overseas Audit (*Pls delete accordingly)								*Yes / No		

SECTION B: APPLICANT 'S COMPANY INFORMATION		
Name of Registered Company:		Office Tel
		Fax
		Email
Business Address		
Building / Block No		
Street Name		
Unit No		
Postal Code		
Contact Person	Name: Mobile Contact No:	Email:
Accounting & Corporate Regulatory Authority (ACRA) #		
ACRA Registration Number		**or Business/Company Registration Ref. with the local Authority for overseas firm
ACRA Registration Date		
Accounts Closing Date		
Latest Audited Accounts (Date)		
Name of Subsidiary/Associated Company		Share in subsidiary co. (%)
1)		
2)		
3)		
#Please attach latest audited accounts signed by Directors and Auditor for verification		

Address/Location of plant/factory for certification:

* Please attach the certificate(s) for verification

SECTION C: COMPANY'S MANAGEMENT SYSTEM

Which management system(s) is your company presently certified?

Management System Standard	*Please tick Standard(s) Certified to	Name of Certification Body (Accredited by SAC or UKAS)	For official use only
ISO 9001			
ISO 14001			
ISO 45001 (or SS506 or BizSafe L3)			

SECTION D: PARTICULARS OF PROFESSIONALS, SUPERVISORS & SKILLED WORKERS

Please attach copies of the relevant **educational and training certificates** of the key staff and skilled workers listed here for verification.
Please make additional copy of Section D to fill-in if the track record is more than one page.

S/N	Name	Designation	Qualification (Degree, Diploma, Certificate)	Institution (Year of Graduation)	No. of years of experience in Precast Concrete	For Official Use
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						

SECTION E: PAST TRACK RECORDS (PAST 3-YEARS)

Please provide projects undertaken by your company for the **past 3-years**. Each project must be enclosed with **Certificate of Completion or Final Progress Claim/Payment**. *Please make additional copy of Section E to fill-in if the track record is more than one page.*

Project Title & Description	Contract Value (S\$)	Estimated Total Concrete Vol.	Start Date	Finish Date	Main precast products	Particulars of Main Contractor/Builder (Name and Contact)	For Official Use Only

SECTION F: CURRENT PROJECTS UNDERTAKEN (PRESENT YEAR)

Please provide current works undertaken by your company. Each project must be enclosed with **Letter of Award**.

Please make additional copy of Section F to fill-in if the current projects is more than one page.

Project Title & Description	Contract Value (S\$)	Estimated Total Concrete Vol.	Start date	Finish date	Main precast products	Particulars of Main Contractor/ Builder (Name and Contact)	For Official Use Only
Example xxxx	S\$1 billion	xxx	xxx	xxx	PPVC shell	Con-Tractor Pte Ltd	

DEFINITION

Category PC1A

Precaster that has the financial, manpower management, plant and design capabilities to produce precast concrete element(s) in their respective product group with automation in a factory-controlled environment with a total contract value more than or equal to S\$30 million in the past 3 years.

Category PC1

Precaster that has the financial, manpower management, plant and design capabilities and track record to produce precast concrete element(s) in their respective product group with a total contract value more than or equal to S\$30 million in the past 3 years.

Category PC2

Precaster that has the financial, manpower management, plant and design capabilities and track record to produce precast concrete element(s) in their respective product group with a total contract value more than or equal to S\$5 million but less than S\$30 million in the past 3 years.

Category PC3

Precaster that has the financial, manpower management, plant and design capabilities and track record to produce precast concrete element(s) in their respective product group with total contract value less than \$5 million in past 3 years.

S/N	Assessment Area	Requirements	CATEGORY				
			PC1A	PC1	PC2	PC3	
1	Management and Facilities						
1.1	Financial	1.1.1 Minimum Paid-up Capital & Net Worth (see Note 1)	S\$2M (required for Min. Paid-up Capital only)	S\$1M each	S\$250K each	S\$50K each	
1.2	Human Resources	1.2.1 Professional ,Supervisory & Technical Personnel (see Note 2)					
		a) Professional	3	2	1	0	
		b) Supervisory	4	3	2	2	
		c) Technical	10	8	5	3	
		1.2.2 Training	a) Training programme and recent training records for staff with at least 2 yrs of service				Training records
			b) At least <u>two</u> supervisors trained in management and supervision of precast concrete projects in the past 12 months, preferably in the relevant Good Industry Practice (GIP) workshop and courses conducted by BCA Academy, Singapore	b) At least <u>one</u> supervisor trained in management and supervision of precast concrete projects in the past 12 months, preferably in the relevant Good Industry Practice (GIP) workshop and courses conducted by BCA Academy, Singapore			
			c) In-house training of workers for precast concrete production by QA/QC Supervisor or Engineer				
1.3	Management Systems	1.3.1 Management Systems	ISO 9001				
			ISO14001		Not required	Not required	
			OHSAS 18001 (or SS506 or BizSafe L3 or ISO45001)		Not required		
		1.3.2 Quality Plan	Required				
1.4	Plant Facilities	1.4.1 Capacity of Plants (a) Annual concrete volume output OR production & storage floor area	a) Gross Plot Ratio (GPR) of at least 1.4 b) Min. 10,500m³ annual concrete volume OR Min. 15,000m² of production & storage floor area	Min. 10,500m³ annual concrete volume output OR Min. 15,000m² of production & storage floor area	Min. 10,500m³ annual concrete volume output OR Min 3,500m² of production & storage floor area	Min. 4,500m³ annual concrete volume output OR Min. 1,500m² of production & storage floor area	
		(b) Monitoring and Documentation of monthly concrete volume production output of plant (m3)	Required				

S/N	Assessment Area	Requirements	CATEGORY			
			PC1A	PC1	PC2	PC3
1	Management and Facilities (cont'd)					
1.4	Plant Facilities (cont'd)	1.4.2 i) Equipment (a) Scales & Measuring i) Measuring tape ii) Spirit level iii) Leveling device iv) Electronic laser device	Items(a) i) to iv)		Items(a) i) to iii)	Items(a) i) to iii)
		(b) Concrete testing i) Test cube mould ii) Vibration hammer/ table iii) Slump test set iv) Compressive strength test machine	Items(b) i) to iv)		Items(b) i) to iii)	Not required
		(c) Lifting i) Shackle ii) Lifting wire iii) Lifting chain iv) Lifting belt v) Lifting frame vi) Lifting clamper vii) Forklift viii) Mobile crane viii) Overhead/Gantry crane	Items(c) i) to viiii)		Items(c) i) to vii)	Items(c) i) to vi)
		Gantry crane capacity 10T & 16T or 20T		Gantry crane capacity 10T or 16T	Gantry crane at least 1 no. 5T	
		(d) Formwork i) Timber ii) Steel iii) Engineered System iv) Metal flatbed workstation & appurtenances	Items (d) i) to iii) or iv)		Items (d) i) to iii)	At least item(d) i) and ii)
		(e) Prestressing In Product Groups in GS2, GS3 & GC1 i) Prestressing machine ii) Saw machine iii) Stressing jack	Items(e) i) to iii)		Items(e) i) to iii)	Not required

S/N	Assessment Area	Requirements	CATEGORY			
			PC1A	PC1	PC2	PC3
1	Management and Facilities (cont'd)					
1.4	Plant Facilities (cont'd)	1.4.2 ii) Calibration	For Load sensors, Pressure gauges, Moisture meters and Data loggers			Not required
		1.4.3 Mechanisation				
		In production, storage and packaging e.g. pallet circulation system, robotics, auto concrete spreader, auto bar bending, vibration table, external vibrator, steel mould forming machines	Must have Pallet Circulation System or Carousel Tunnel Segment and Curing Chamber	Required	Required	Not required
		1.4.4 Information Technology (IT)				
		For Communication, Documentation and Record	LAN, Electronic Real-time Processing System, Data Management System, BIM, Biometric Authentication System (BAS)		LAN, Internet access	Internet access
2	Track Record and Production Drawings					
2.1	Track Record	2.1.1 Minimum Contract Value (CV) for past 3 yrs - CV from the Group of Companies (Precast related) can be considered - CV accumulation of latest 3 years	CV ≥ S\$30.0m OR For newly set-up plant, 1 st year - provisional certification 2 nd year -S\$10.0m 3 rd year -S\$20.0m	CV ≥ S\$30.0m	S\$5.0m ≤ CV < S\$30.0m	CV < S\$5.0m
2.2	Shop drawings production	2.2.1 Drawing staff	1 BIM Manager At least 3 staff for drawing and 2 staff are BIM-Certified	At least 2 staff for drawing and 1 staff is BIM-certified	At least 1 staff for drawing	Not required
		2.2.2 Preparation & Control of Shop drawings	Drawing Manual and procedure for control of drawing for production		Procedure for control of drawing for production	Not required

Precaster Accreditation Scheme Criteria & Grading Schedule

Annex 1

S/N	Assessment Area	Requirements	CATEGORY			
			PC1A	PC1	PC2	PC3
2	Track Record and Production Drawings (cont'd)					
2.2	Cont'd	2.2.3 IT Provisions and Equipment BIM software or others – e.g. Revit, Tekla structures, Nemetchek All Plan Precast or similar software. Hardware like personal computers, workstations, servers, plotters & printers, data centre	BIM software in at least 3 nos. desktop computers	BIM software in at least 2 nos. desktop computers	Autocad in at least 1 no. desktop computer	Not required
3	Quality Control In Production					
3.1	Raw Material Maintain material specifications & their test records	3.1.1 Concrete	Required			
		3.1.2 Cement	Required			
		3.1.3 Sand	Required			Not required
		3.1.4 Aggregate	Required			
		3.1.5 Admixture	Required			
		3.1.6 Reinforcing Steel Bar	Required			
		3.1.7 Prestressing Steel In Product Groups:GS2, GS3 & GC1	Required			Not required
		3.1.8 Miscellaneous materials e.g. metal inserts, lifting devices, packers and embedded steel	Required			
3.2	Concrete Mix Supply If external RMC supply, pls maintain test records of materials and compressive concrete cube tests	3.2.1 Certification of Batching Plant (For overseas plant, it shall be certified to ISO 9001 and RMC specified to EN206-1:2009)	Required			Not required
		3.2.2 Storage and Handling of Aggregates *Not applicable for concrete supplied by RMC plant	Fully enclosed storage for fine and coarse aggregates	Sheltered or covered, and prevent intermingling of aggregates		
		3.2.3 Concrete Testing	a) Tested by SAC-SINGLAS accredited laboratory or an ILAC- MRA partner b) Records of concrete test cubes compressive strength reports c) PC1 required to have in-house testing equipment and tests procedures			

S/N	Assessment Area	Requirements	CATEGORY			
			PC1A	PC1	PC2	PC3
3	Quality Control in Production (cont'd)					
3.3	Production	3.3.1 Operation Control	Quality Plan and QA/QC procedures			Method Statements
		3.3.2 Inspection & Test Plan	ITP for Precast Concrete Production and ITP for Batching Plant		ITP for Precast Concrete Production	Maintain test records for concrete and rebar
3.4	Product Quality and Tolerance	3.4.1 Architectural and Concrete Finish	Required			
		3.4.2 Product Tolerance	Required			
		3.4.3 Demonstrate in-process repair to finish concrete defect	Required			
3.5	Storage, Protection and Delivery	3.5.1 Procedures for Storage, Protection & Delivery	Documented procedures and implemented			Proper storage & protection
		3.5.2 Minimum Concrete Strength Specified for Demoulding and Lifting	Monitor 1,3,7 and 28 days concrete strength test results			Monitor 28 days concrete strength test results
		3.5.3 Final Inspection & Acceptance of Precast Concrete Products	a) Records of post pour inspection by QA/QC supervisor and client's representative. b) Records of the delivery order of the completed components approved for release by an authorised person.			
3.6	(For group *PPVC only) In process trial assembly of PPVC modules	3.6.1 Method statement (MS) for assembly of PPVC modules	Presentation of the MS and BIM simulation of installation			
		3.6.2 Demonstrate the in-process assembly and the QC checks	Simulate the installation process in the factory for floor-to-floor and the checks for alignment and verticality			

4 Product Range

4.1	Product Group	Description	Remark
	GS1	<u>Precast Concrete Products (No Pre-stressed Reinforcement)</u> : Conventionally reinforced precast concrete elements, including piling, pile caps, sheet panels, retaining wall, planks, floor and roof slabs, joists, stairs, seating members, columns, beams, walls, spandrels, roof water tanks, household shelters and prefabricated bathroom units.	1. Precaster shall declare their main precast concrete product(s) in the application form. 2. Product grouping is for easier identification of precaster's product range. 3. Accredited precaster shall have their specific product group(s) indicated on the Certificate of Accreditation. 4. The accredited category and the specified product group provide a guide specification to all parties for selecting the precaster that suits the particular contract and its project requirements. 5. The Precaster Accreditation Scheme does not certify any product conformity and its assessment is on the control processes leading to product quality within acceptable tolerances. 6. In-process trial assembly of PPVC modules is required for *PPVC.
	GS2	<u>Pre-stressed Repetitively Produced Products</u> : Precast concrete products that pre-stressed with <u>straight</u> , pre-tensioning, or post-tensioning strands. Included are hollow-core slabs, spun piles, floor, roof and wall construction, that maybe wet cast, machine cast, extruded, or slip formed. Other products include, flat slabs, wall panels, planks and <u>all products in GS1</u> .	
	GS3	<u>Pre-stressed Structural Products</u> : Precast concrete structural members that are pre-stressed with <u>deflected</u> , pre-tensioning, or post-tensioning strands. Included are stemmed members for roofs, floors, and walls, as well as beams, columns, spandrels, joists, seating members, and <u>all products in GS1 and GS2</u> .	
	GC1	<u>Bridge, Railway and Roadwork Structural Products</u> : Like box girders, T-shaped or I-shaped segments, undercarriages, road viaduct components, MRT/LRT viaduct components, pedestrian overhead bridge components, rail tunnels segments and linings, ventilation shafts, railway ties/sleepers, and earth retaining structures. Include <u>pre-stressed</u> and <u>post-tensioned</u> components, repetitive produced members and modular units, plus customisation and specialisation with architectural finishes. M&E service maintenance tunnels & ventilation shafts.	
	GC2	<u>Sewerage and Drainage Products</u> : Like manholes, box culverts, box drains, channels ICs , circular pipes, underground tanks, sewerage tunnels, drainage tunnels, sluice channels, coastal protection structures. Include <u>pre-stressed</u> and <u>post-tensioned</u> components, repetitively produced members and modular units.	
	GA	<u>Non-Structural Products</u> : Like internal walls, claddings, sun breakers, refuse chutes, roof slabs, interlocking blocks/pavers, benches, ICs, electrical draw-pits, chamber rings, reinforced concrete covers, U-drains, cable trenches, M&E ducts, noise barriers, road kerbs, drop inlets, utility masts/poles, false columns and masonry blocks.	
	PPVC	<u>PPVC Concrete Module</u> : 3D module that is either assembled from panels or cast as a volumetric component and ready for interior finishing works.	

Note 1

- a) Both minimum paid-up capital and net worth shall be met separately.

Note 2

- a) “Professional” shall mean a professional qualification with a recognized degree in Civil & Structural Engineering or equivalent qualifications approved by Professional Engineers Board. Alternatively, Professional Staff must have obtained a degree in Civil & Structural Engineering from universities listed in Building Control Act (Chapter 29), Building Control Regulations: Fourth Schedule.
- b) “Supervisory” shall mean a minimum technical qualification with a polytechnic diploma in Architecture, Building, Civil/ Structural Engineering or a National Certificate in Construction Supervision (NCCS). Alternatively, Supervisory staff must have a minimum of 5 years of working experience in precast concrete works if he does not possess the minimum technical qualification stated. **Supervisory staff shall attend training in precast concrete management, and preferably in the relevant Good Industry Practices (GIP) workshops and relevant courses conducted by BCA Academy, Singapore.**
- c) “Technical” shall mean skilled workers in precast concrete works and have the competency in precast and/or prestressed concrete works. Professional and Supervisory staff shall train the workers in-house and to ensure workers have the competent level of skills and knowledge. Alternatively, the workers shall have certificates (like the BCA Coretrade) from recognized and/or accredited institutions for training in concrete, rebar and formwork or precast concrete and/or prestressed concrete.
- d) **Equivalent qualifications, training and experience for staff in overseas plant/factory** from internationally recognized universities and polytechnics.

CHECKLIST FOR APPLICATION

Please check that the following items are completed and attached		Contractor to Tick Accordingly (✓)	Remarks (For Official Use)
1	Completed set of Application Form (Declaration and Section A to F)		
2	Attached complete set of latest Audited Accounts or Statement signed by Directors, Accountant & Financial Auditor		
3	Attached relevant Academic Certificates for Professional, Supervisory staff and Qualified Workers employed		
4	Attached valid ISO 9001 Quality Management System Certificate (ISO 14001, and/or ISO 45001/ Bizsafe L3 or SS506 certificates, if certified)		
5	Attached Letter of Award / Certificate of Completion for each track record and project under construction		
6	Read & understood the SCI's Precaster Accreditation Scheme Terms & Conditions		
7	Payment of accreditation fees upon submission to SCI		

ACCREDITATION FEE / RENEWAL FEE (Factory in Singapore)

Category	SCI Corporate Member	Non-SCI Corporate Member
PC1A	S\$3400	S\$4000
PC1		
PC2	S\$2650	S\$3250
PC3	S\$2000	S\$2600

**For Category in group *PPVC, there is an additional charge of S\$1100 to the above fees.*

RE-AUDIT FEE (Factory in Singapore)

For precasters *who are not successful in obtaining accreditation* (include new applicants), they are required to **apply for re-audit and pay a fee of S\$1250 for the additional audit** to verify and close out their corrective actions for the major non-conformities raised.

Note 3

1. The accreditation fee is payable upon submission of application for processing.
2. For overseas audit, SCI will give a **quotation of the accreditation fees** to the applicant.
3. The current fees for SCI Corporate Membership is **S\$578**.
4. There will be no refund of the fee paid if the company is not awarded the Certificate of Accreditation according to their application.
5. The renewal fee shall be payable to SCI before renewal audit will be arranged. Renewal audit should be carried out before the expiry date of the current Certificate of Accreditation. Application for renewal must be submitted at least one month before the expiry date of certificate.
6. For overseas audit, SCI will assign the auditor(s) and an observer.
7. The Precaster shall bear the costs of the accommodation and transportation incurred. Other miscellaneous and service fees will be chargeable as shown in the quotation.
8. The production of precast components shall be carried out in a factory building or on temporary occupation licence (TOL) land under controlled environment away from the project site.

For enquiries, please contact the Secretariat: Ms Edina Koh (Tel:6552 0674 Email: edina@scinst.org.sg)