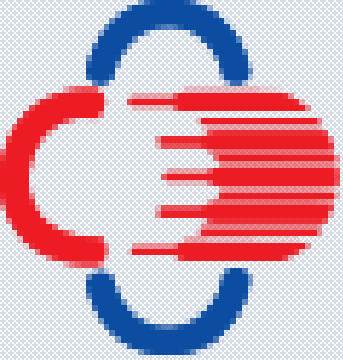




正和ポリテック工業株式会社
JEONGWHA POLYTECH CO.,LTD

Company profile

JEONGWHA POLYTECH CO.,LTD

Application for Construction
<http://www.jeongwha.co.kr>
T : (+)82 31 499 2470
F : (+)82 31 499 2480
E : poly2474@jeongwha.co.kr

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01 **Company** **introduction**

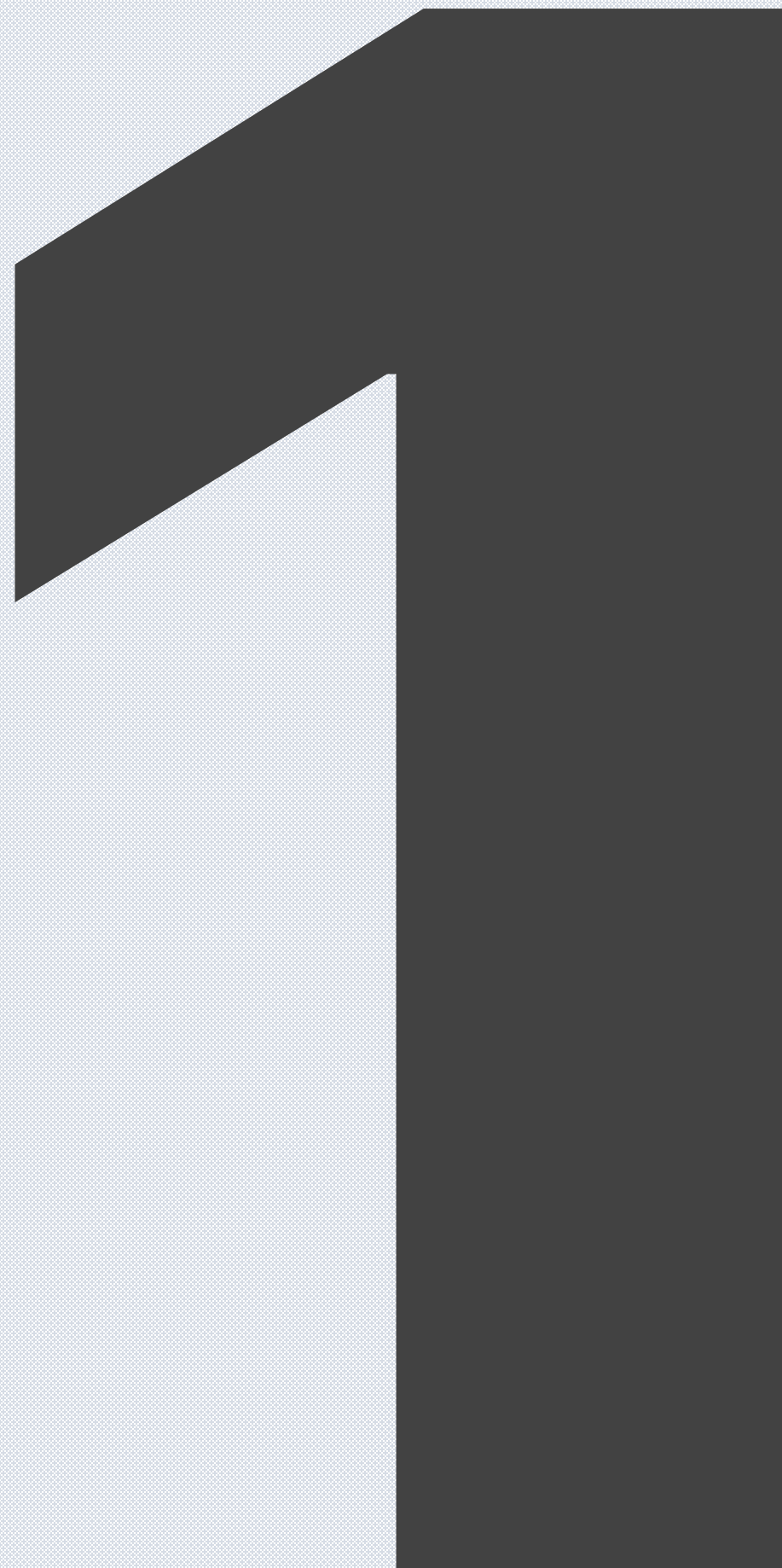
04 **Products** & **process**

02 **Company** **history**

05 **Construction** **performance**

03 **Factory** **status**

06 **Certificates**



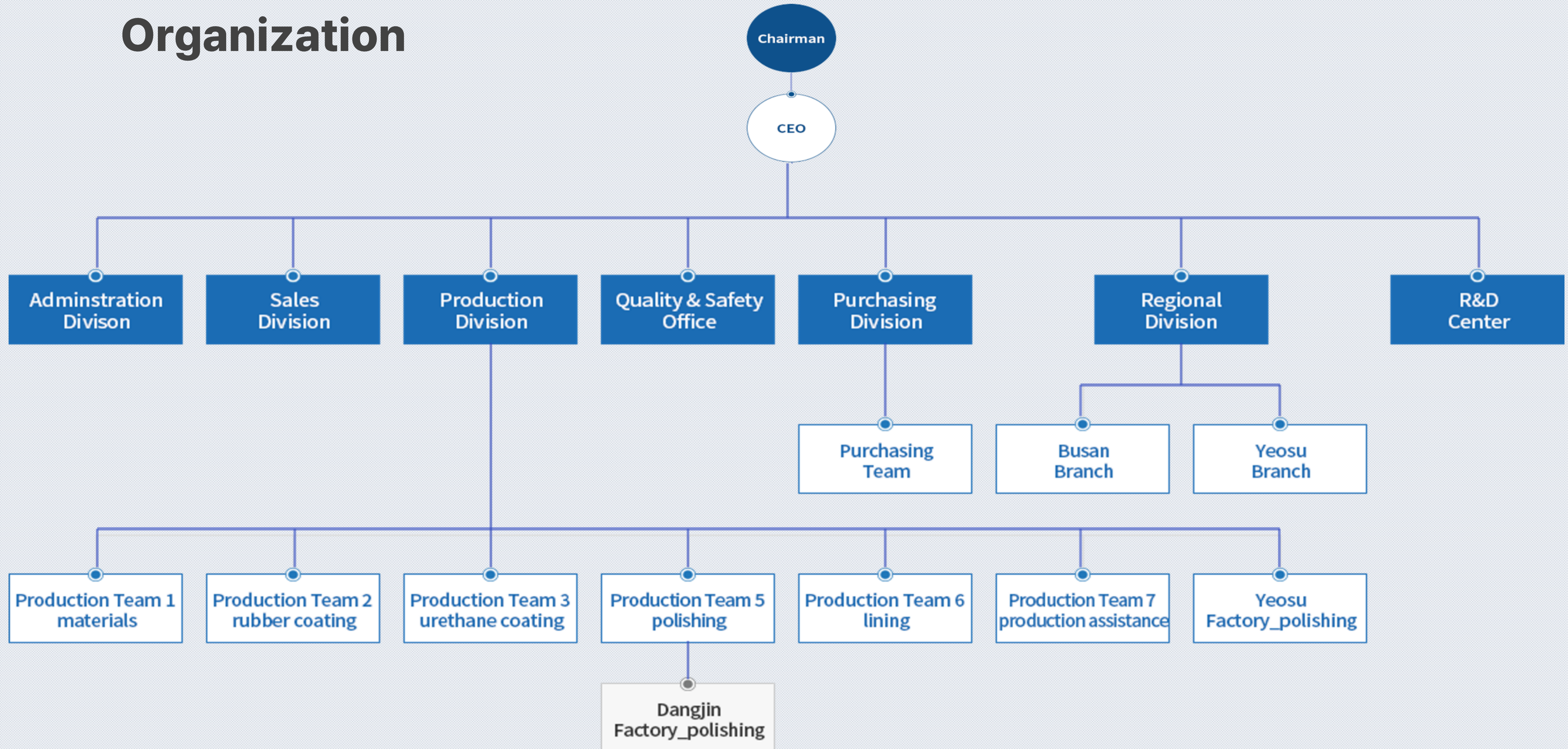
Company **introduction**

01 Company introduction

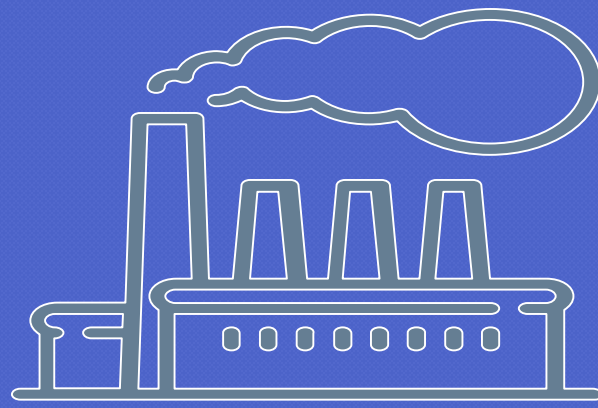
TRADE NAME	Jeongwha Polytech Co., Ltd.
C. E. O.	Kim. Keun Pil
ADDRESS	95, Gyeongje-ro, Siheung-si, Gyeonggi-do, Republic of Korea(15093) (1-RA-507, Sihwa Industrial Complex)
WEBSITE	www.jeongwha.co.kr
DAY OF ESTABLISHMENT	01/03/1976
THE CATEGORY OF BUSINESS	Rubber Lining
	Molded Products
	Elastomer Covered Roller
	Engineering Service

01 Company introduction

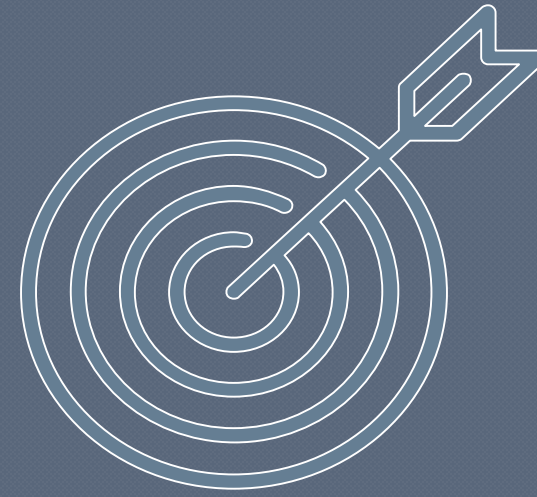
Organization



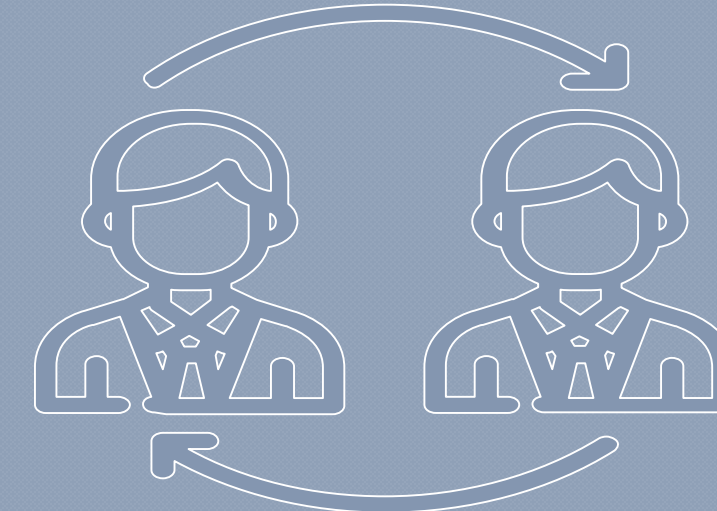
01 Company introduction



Technology first



Quality first



Customer Satisfaction First

- **Leading the development of industrial rubber products for 50 years**
- **Supplying the most optimal products for customer needs**
- **Providing integrated service from production of lining rubber to fabrication of lining**
- **Occupying more than 90% of the large tank lining market in Korea**

2

Company
history

02 Company history

- 1976.3 Foundation of Jeongwha Polytech Co., Ltd.
- 1983.12 Construction of Banwol Factory
- **1987.11 Technical Cooperation with Showa Rubber Co., Ltd.(Japan)**
- 1989.7 Introduction of Urethane Automatic Dispensing Machine
- 1993.8 Construction Shiwha Factory
- **1994.5 Technical Cooperation with Fuji Resin Co., Ltd.(Japan)**
- 1996.3 Introduction of the Biggest Autoclave in Korea (5,000Ø x12000L)
- 1997.4 Establishment of Jeongwha Technical Research Institute
- 1999.7 Introduction of Automatic Rubber Roll Covering Machine
- 2001.5 Establishment of Sunchon Office
- 2003.9 Certification for ISO 9001 : 2000 / KSA 9001 : 2001
- 2006.6 Construction of Yeosu Factory
- 2015.5 Commendation from the Minister of Trade, Industry and Energy
- **2020.12 Factory Investment of Vietnam Dot Do Complex**
- 2021.6 Certificate for ISO 45001 : 2018



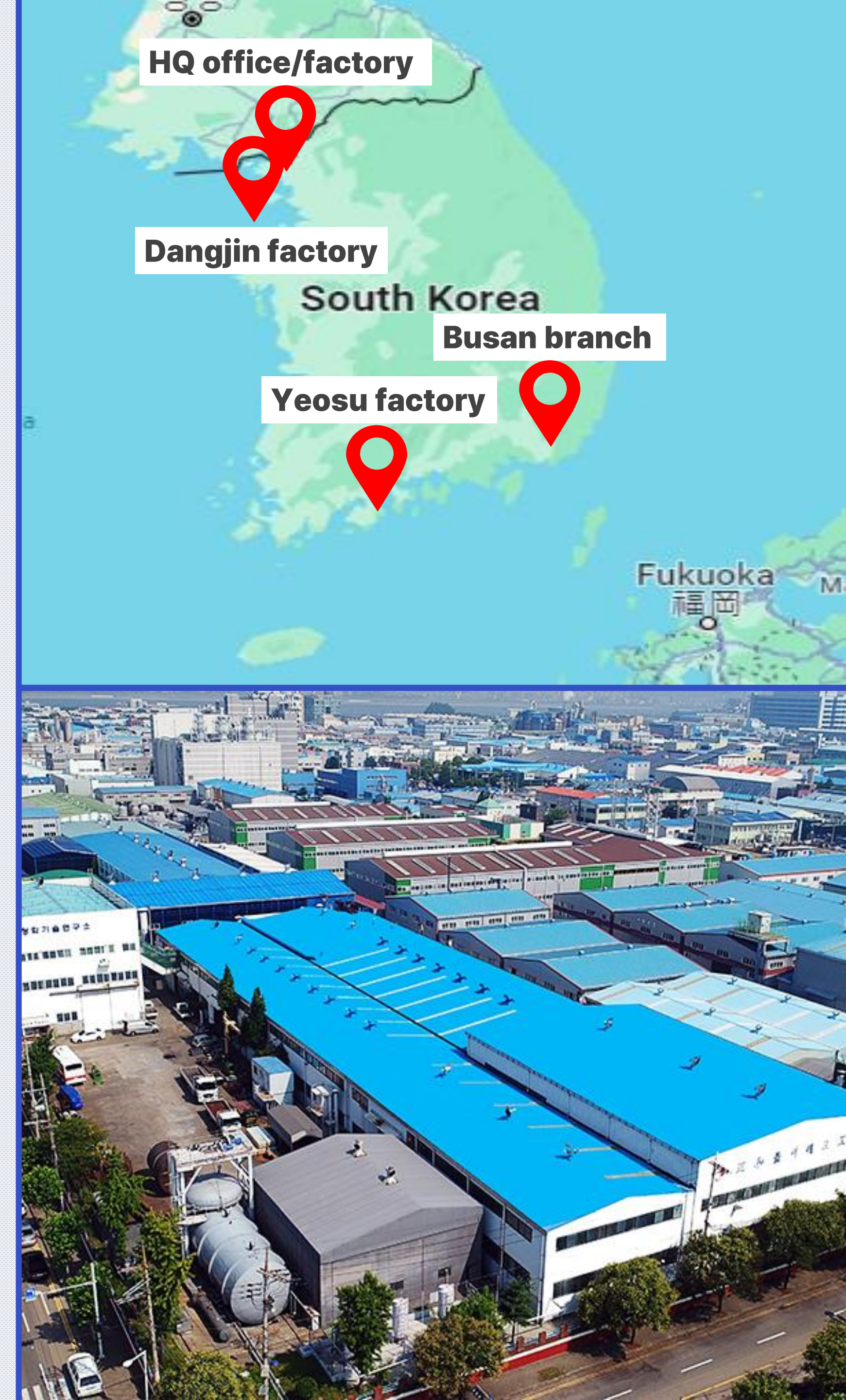
3

Factory
status

03 **Factory** **status**

A head office, factory

The site of the headquarters factory is approximately **9,000 square meters**. At the headquarters factory, not only rubber rolls, urethane rolls, and rubber linings are manufactured, but also our rubber production processes are carried out.



03 **Factory** **status**

Branch

Yeosu factory

- (59610) 113, Sandanjungang-ro, Yeosu-si, Jeollanam-do, Republic of Korea
- 6,330 square meter

Dangjin factory(Polishing)

- (31702) 24, Sandan 3-ro 6-gil, Seongmun-myeon, Dangjin-si, Chungcheongnam-do, Republic of Korea
- 561 square meter

Busan branch

- (46013) 104-11, Jeonggwan 5-ro, Jeonggwan-eup, Gijang-gun, Busan, Republic of Korea

03 **Factory** **status**

Production department district

A department that produces rubber for use in manufacturing rubber coatings, linings, and other molded articles

The department responsible for rubberizing rolls made of iron

Department that coats and hardens the rolls with liquid urethane to make urethane rolls

Materials

Polishing

**Rubber
coating**

**Rubber
lining**

**Urethane
coating**

Press

The surface of the coated roll is cut to an appropriate thickness and surface-processed.

Coat the tank or pipe with rubber.

Rubber or urethane is molded to produce products of various shapes.

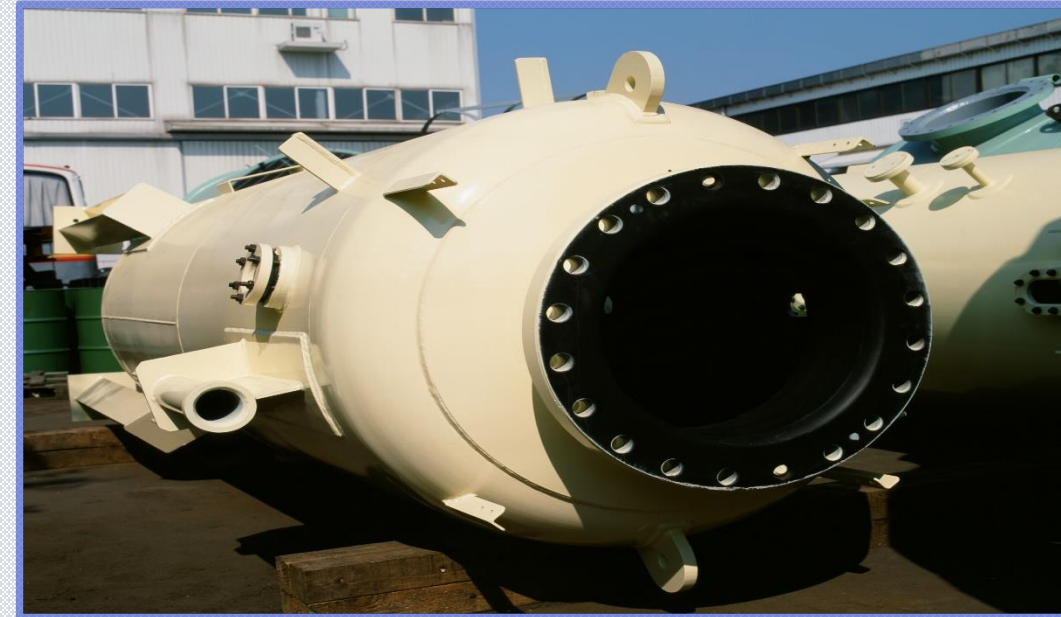
4

Products
&
process

04 Products & process

**Production item
&
capacity**

Rubber Lining



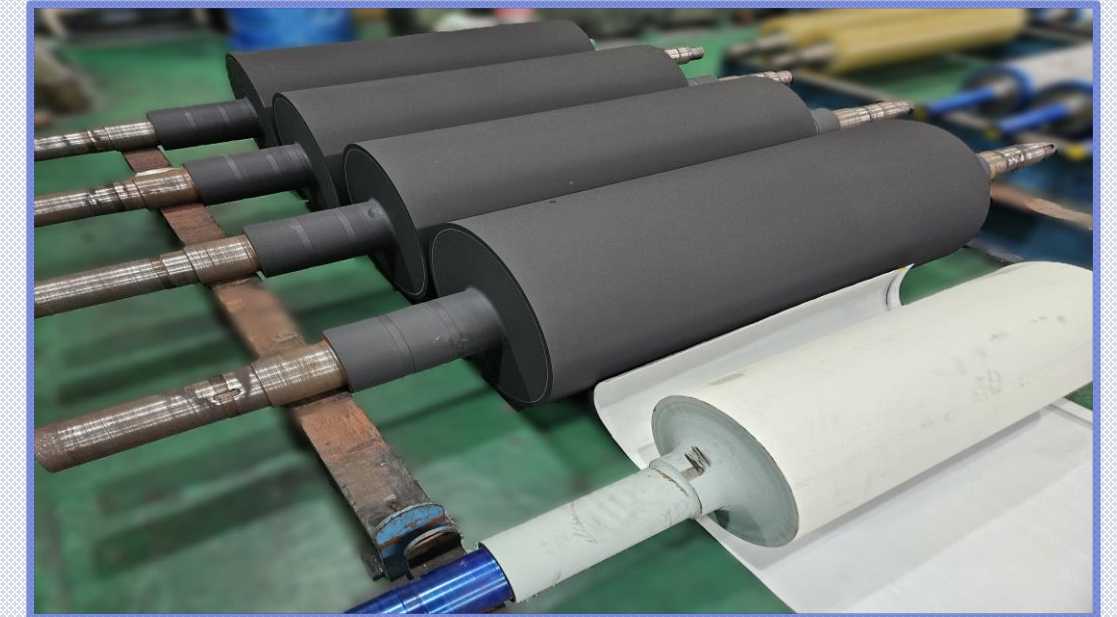
5,000m² / Month

Polyurethane Rolls



30,000Kg / Month

Rubber Rolls



40,000Kg / Month

Molded Products



5,000Kg / Month

04 Products & process(Lining)

The supply of lining products

Our lining products are widely supplied in the Chemical Industry, Soda Products Industry, Foods and Medicines Industry, Pollution Control Facilities, Electric Power Generation, Water Treatment, Mine Industry, Steel Industry.



04 Products & process(Lining)

Types of lining

If mass-produced rubber sheets are used for lining, various problems may arise, depending on the situation.

However, **Our rubber is made in our own factory to meet your particular needs.** Entering into a technical partnership with SHOWA RUBBER Co., Ltd.(Japan) in 1987 and FUJI RESIN Co., Ltd.(Japan) in 1994, we attained the world level of our rubber's quality. Since then, we have innovated many kinds of rubber our customers have needed.

We have carried out all thermoelectric power plants' pipe lining and it has been trouble-free. **Jeongwha's rubber quality and technique of lining have received recognition from the foreign market as well as the domestic market.**

NR

Natural Rubber-hard

It has been used as a corrosion-resistant lining material because of its **excellent corrosion resistance, adhesion, processability, and heat resistance.** It is resistant to **chemical resistance, especially hydrochloric acid and chlorine gas.**

EX) DUREPOLY 67, DUREPOLY 78

CR

PolyChloroprene Rubber

It has **excellent heat resistance, weather resistance, oil resistance, and chemical resistance.** It is essentially flame-retardant and easy to crystallize rubber. It is mainly used in seawater pipes because of its good ozone resistance and resistance to seawater.

EX) DUREPOLY 128, DUREPOLY 1600

NR

Natural Rubber-soft

It has **corrosion resistance to hydrochloric acid.** It is used without cracks due to mechanical impact, heat from -30°C to 80°C due to its large elongation. **Depending on the blending, the abrasion resistance becomes very excellent** and is used in a reaction tank, a pump, etc. containing a slurry.

EX) DUREPOLY 32, DUREPOLY 33

IIR

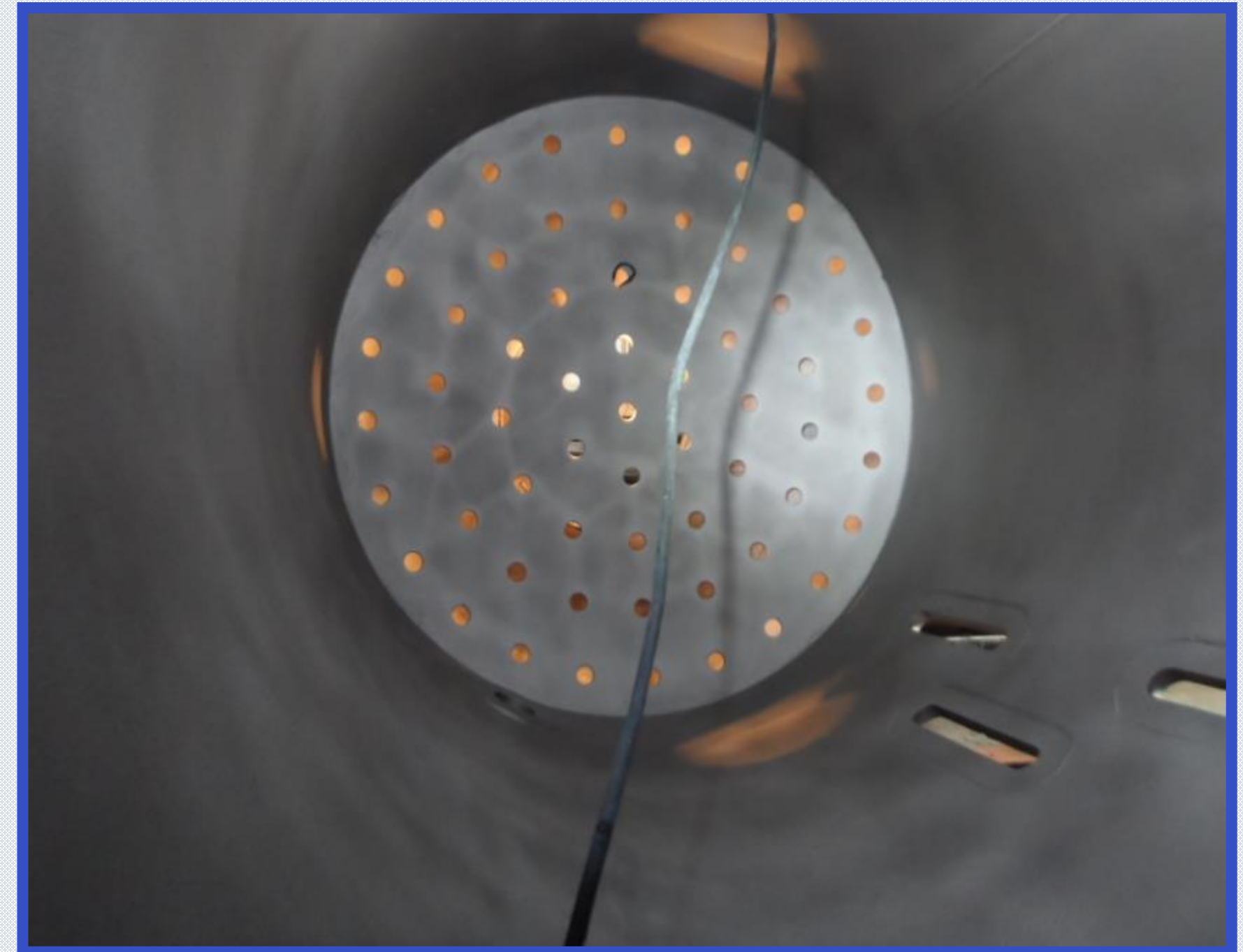
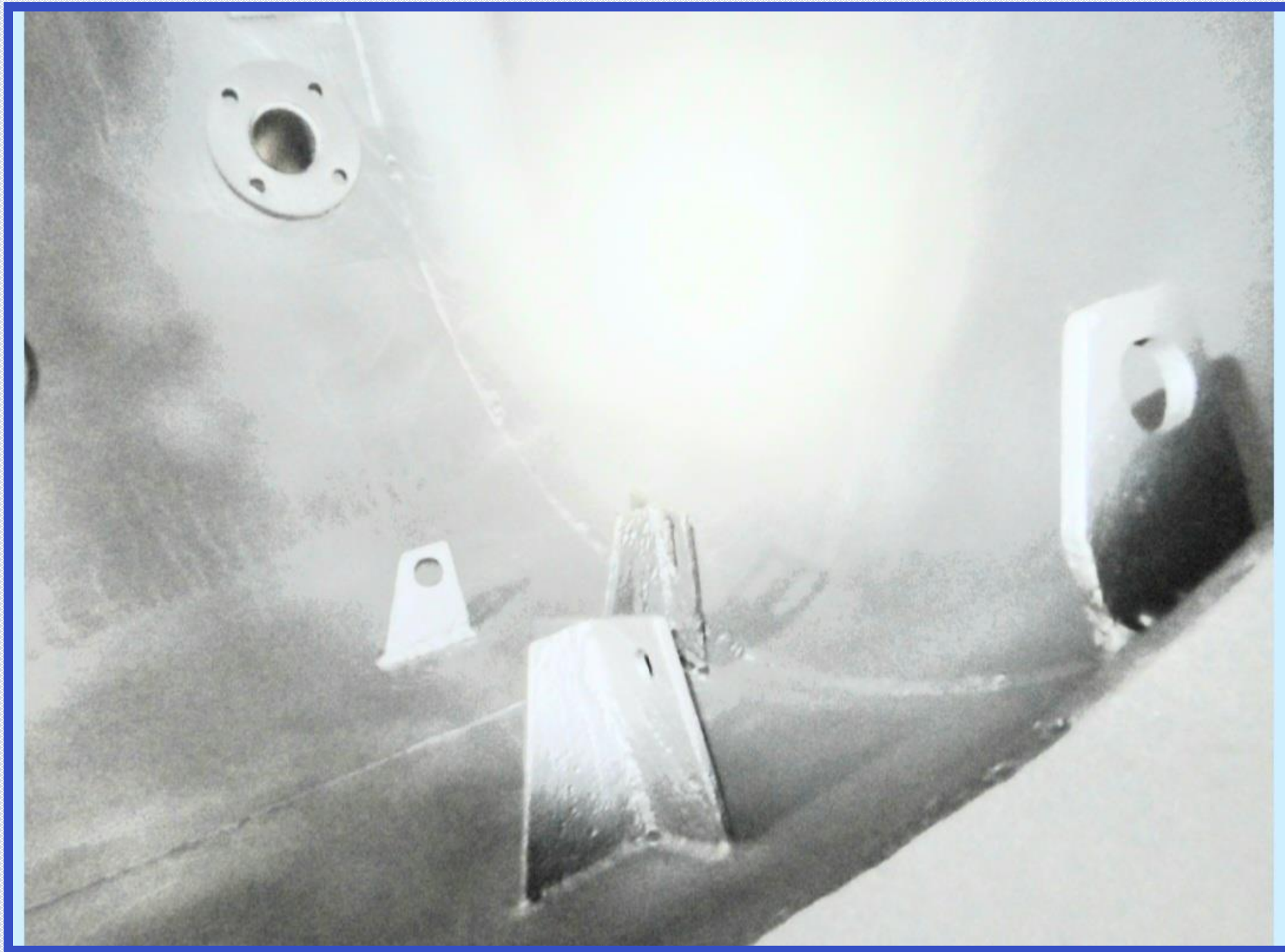
Isobutylene Isoprene Rubber

It has **excellent chemical resistance and low gas permeability,** resulting in fewer blisters. It is mainly used for FGD systems and equipment that work at high temperatures.

EX) DUREPOLY 360A, DUREPOLY 370, DUREPOLY 3750, DUREPOLY 3700

04 Products & process(Lining)

Lining process sequence



1. A preliminary examination/ surface treatment

Inspecting the object for any problems with lining construction. and then remove foreign substances on the object surface with sand or grit.

04 Products & process(Lining)

Lining process sequence



2. Applying rubber adhesive

Apply adhesive evenly to the surface of the object treated.

04 Products & process(Lining)

Lining process sequence



3. Attach a rubber sheet

Cut the rubber sheet to fit each part of the object and attach it completely.

04 Products & process(Lining)

Lining process sequence



4. First defect check

After all rubber sheets are attached, conduct the first pinhole test before vulcanization.

04 Products & process(Lining)

Lining process sequence



5. Vulcanization work

After the first inspection, put the object in the vulcanization facility and vulcanize it to the appropriate time and temperature.

04 Products & process(Lining)

Lining process sequence

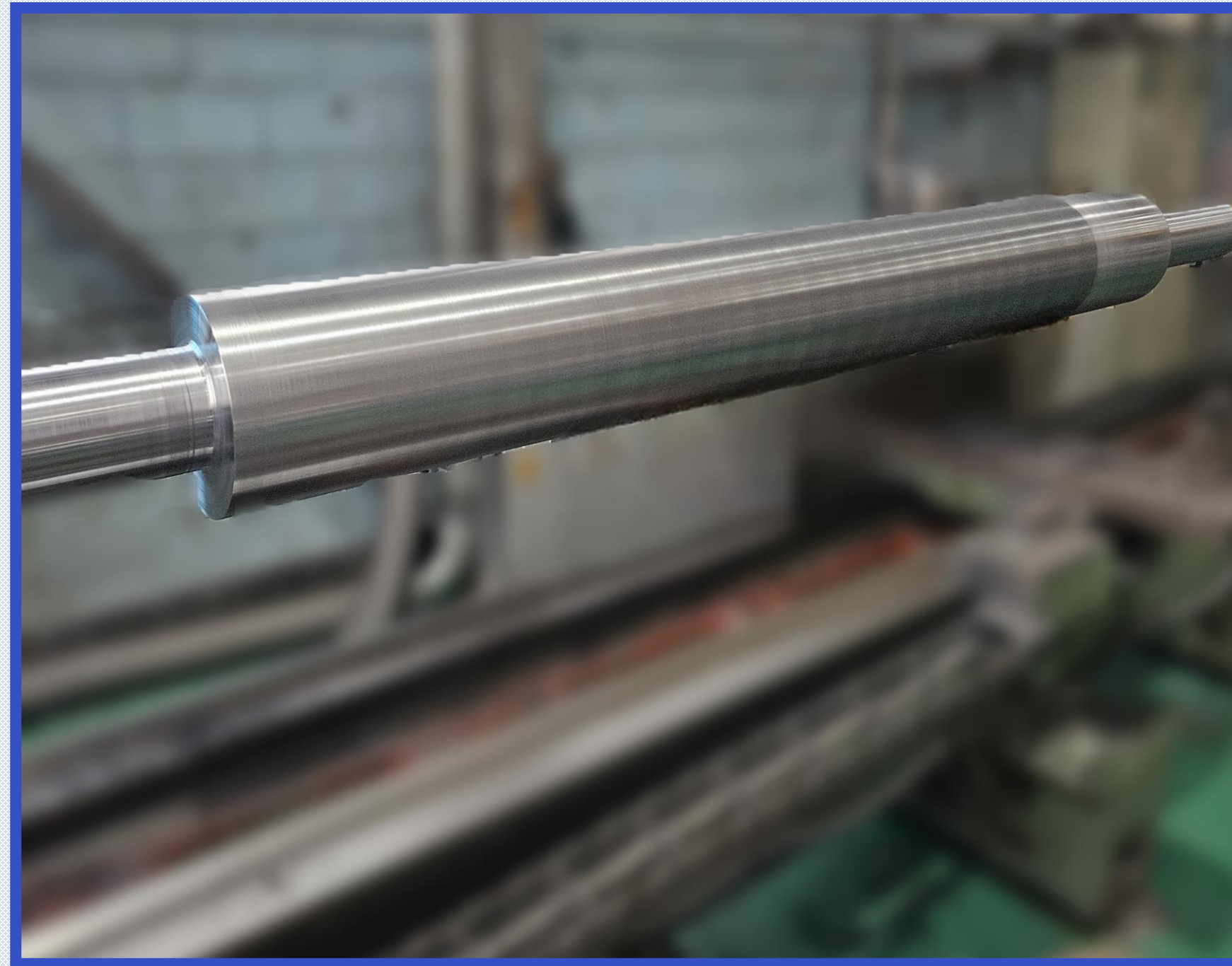


6. Four inspection / product completion

After visual inspection, hardness inspection, thickness inspection, and pinhole inspection, objects are packaged and delivered.

04 Products & process(Rolls)

Roll process sequence

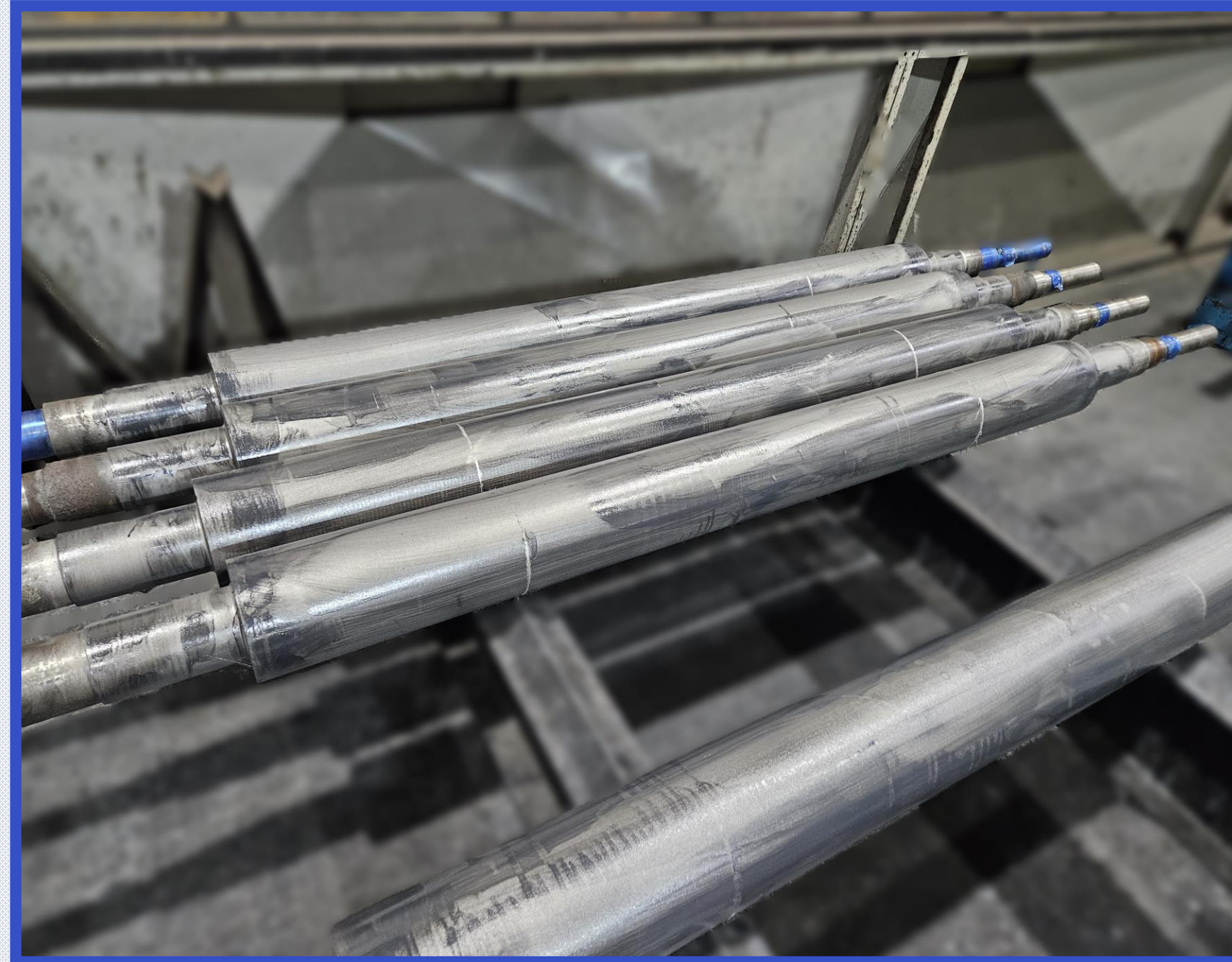


1. Remove coating/ surface treatment

Remove the existing coating. Then, treat and clean the surface of the iron roll

04 Products & process(Rolls)

Roll process sequence



2. Applying rubber adhesive

Apply the rubber adhesive evenly to the surface of the roll

04 Products & process(Rolls)

Roll process sequence



3. Coating

Rubber rolls- Stick the rubber sheet while pressing it well. In some cases, it is covered with a machine.

Urethane rolls- Pour liquid urethane into the mold-covered roll.

04 Products & process(Rolls)

Roll process sequence



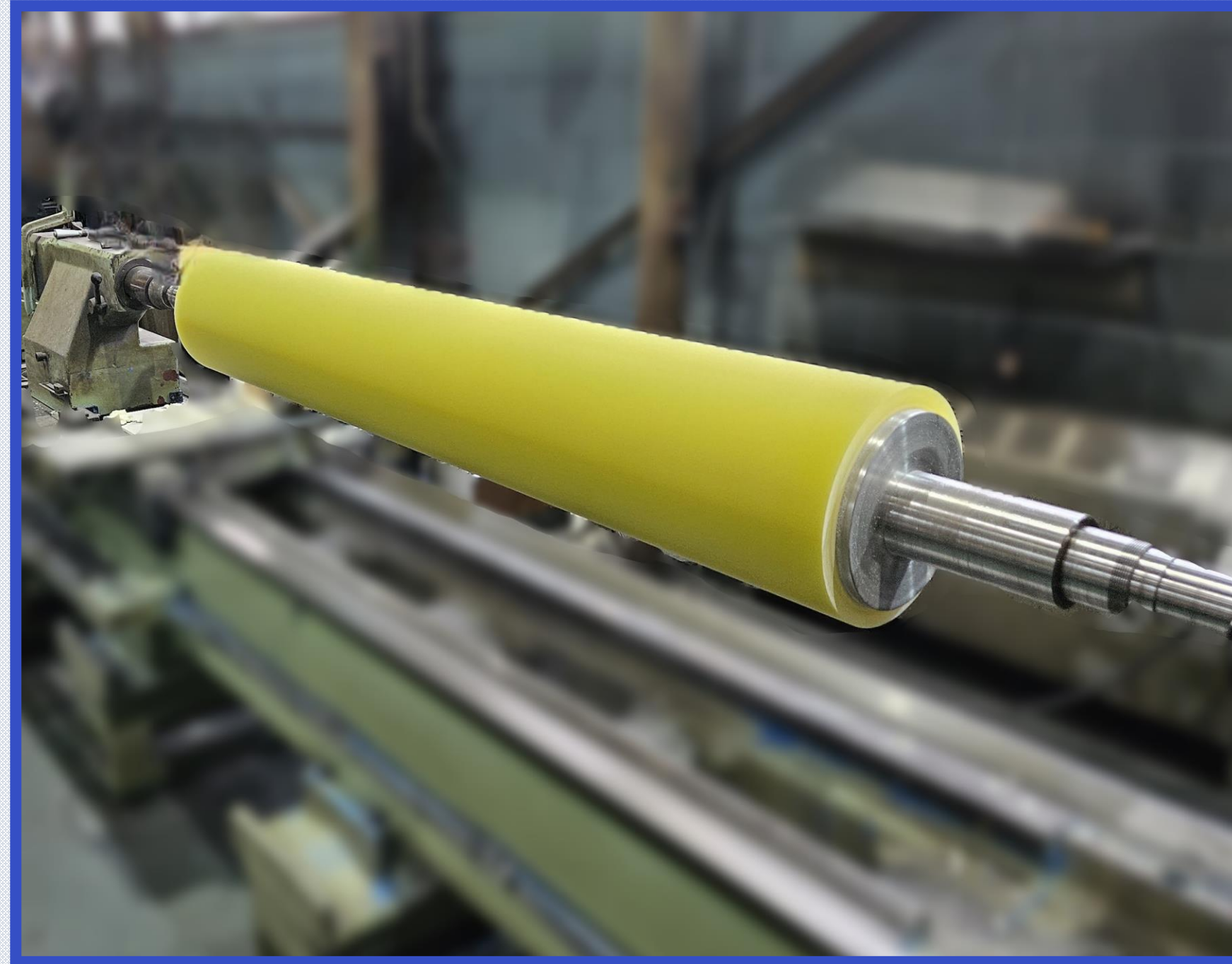
4. Vulcanization work/urethane hardening work

Rubber rolls- Wrap the coated rubber roll and put it in the autoclave to vulcanize.

Urethane rolls- Put molded urethane rolls in kiln. Then hardening for a appropriate time.

04 Products & process(Rolls)

Roll process sequence



5. Polishing/product completion

After the vulcanization operation, the roll is polished to an appropriate thickness.

5

Construction performance

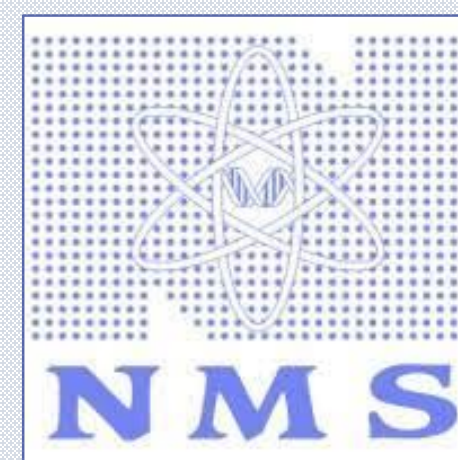
05 Construction performance

The domestic company that we constructed the lining



05 Construction performance

The foreign company that we constructed the lining



05 Construction performance (2023)

CLIENT	PROJECT	ITEM
HYUNDAI STEEL (Suncheon)	UT cations & anions Tank	UT cations & anions Tank
OCI (Gunsan)	BRINE-TANK	BRINE-TANK
BACK KWANG Industrial CO.,LTD (Gunsan)	Hydrochloric acid tank A	Hydrochloric acid tank A
LOTTE FINE CHEMICAL	T-030 Clarifier Tank R/L	T-030 Clarifier Tank R/L
Hanwha Solutions TDI	R-765 Hydrochloric acid storage tank	R-765 Hydrochloric acid storage tank
Hanwha Solutions	Hanwha Solutions Cosmos Project	ION EXCHANGER RESIN UNIT
Hanwha Solutions	Hanwha Solutions Cosmos Project	D.W TREATMENT SYSTEM

CLIENT	PROJECT	ITEM
Hanwha Solutions	Hanwha Solutions Cosmos Project	Clarified Brine Tank (D-2508)
		Ion Exchange Waste Tank (D-2525)
		Anthracite Brine Tank (D-2510)
		Filtrated Brine Tank (D-2511)
		Back Wash Tank (D-2513)
COSMO Chemical Co .,Ltd.	COSMO RIBBON MIXER	RIBBON MIXER R/L
Woojin C&A		RIBBON MIXER R/L

05 Construction performance (2022)

CLIENT	PROJECT	ITEM
LOTTE CHEMICAL	LOTTE CHEMICAL LINE PJT INDONESIA	90-W-501A/B/C/D/E (SW FILTER R/L)
LOTTE CHEMICAL	LINE PROJECT RWT	LINE PROJECT RWT TANK R/ LINING
Ingredion Korea Incoperated	ION TOWER R/L	Ion-C-Tower &Others
Doosan Heavy Industry	WASTE WATER TREATMENT SYSTEM	AGITATOR R/L
OCI Company Co., Ltd.	CA L4-R2304 ION Tower Spare Pjt	ION TOWER R/L
OCI Company Co., Ltd.	T-789B Thickener R/L	T-789B Thickener R/L
FOOSUNG Co., Ltd.	REACTOR R/L	REACTOR (R-581B)

CLIENT	PROJECT	ITEM
LOTTE FINE CHEMICAL	RETURN BRINE TANK (D-9080) R/L	RETURN BRINE TANK (D-9080)
KOENTEC	NaOH TANK (T-402) R/L	NaOH TANK (T-402)
KOC	SUPERPURIFIED BRINE TANK R/L	SUPERPURIFIED BRINE TANK (T-123)
KOC	BRINE POLISHING FILTER R/L	BRINE POLISHING FILTER (TW-113A/B)
LOTTE FINE CHEMICAL	HCL STORAGE TANK R/L	HCL STORAGE TANK (TK-406B)
Hyundai-Steel	Anion exchange resin Tank R/L	Tank R/L
Hanwha Solutions	D-105 Tank R/L	D-105 Tank

05 Construction performance (2021)

CLIENT	PROJECT	ITEM
Samsung Electro-Mechanics	Samsung Electro-Mechanics Sejong Plant TK&SPOOL R/L	TANK&SPOOL R/L
Younghung Thermal Power Plant #5,6	Younghung Thermal Power Plant #5,6	Vacume Valve R/L
Ingredion Korea Incoperated	Ion-A-Tower R/ Lining	Ion-A-Tower &Others
Korea Western Power Co., Ltd.	Taeon Power Plant #5 Waste Water System	TANK R/L
PAIK KWANG INDUSTRIAL CO.,LTD	Brine Thickner Rubber Lining	Brine Thickner Rubber Lining &Others R/L
LG Chem., Ltd.	Clarified Brine Tank (TK-5040) R/L	Clarified Brine Tank (TK-5040)
BASF Co. Ltd.,	HCl Storage Tank R/L	HCl Storage Tank

CLIENT	PROJECT	ITEM
Taiwan Power Company	Datan Combined Cycle Expansion Project	Channel for Water Heat Excanger
POSCO	-	3ACL E,C TANK
Hanwha Solutions	-	HCL STORAGE TANK (V-324)
LOTTE FINE CHEMICAL	-	MICRO FILTER (F-692A/B) &Others R/L
LOTTE FINE CHEMICAL	-	ACTIVATED CARBON FILTER (F-2681C)
UNID	-	ANION EXHANGER T-083 &Others R/L
Samsung C&T	Gangneung Anion Thermal Power Plant Units 1&2 FGD WWT System	Pipes & Fittings

05 Construction performance (2020)

CLIENT	PROJECT	ITEM
POSCO	POSCO PICKLING Plant	3HAPL sulfuric pickling tank
Back Kang IND	HCl Storage Tank B Rubber Lining	HCl Storage Tank
LG Chem, Ltd.	UT 2B3T A Cation Rubber Coating	Cation Exchaner
Doosan Heavy Industries & Construction Co., Ltd.	NS2 FGD Pipe	Pipes & Fittings
Samsung Electro-Mechanics	Samsung Electro-Mechanics Sejong Plant TK&SPOOL R/L	TANK&SPOOL R/L
Korea South-East Power	-	Vacume Valve R/L
Ingredion Korea Incoperated	-	Ion Tower Rubber Lining

CLIENT	PROJECT	ITEM
Ingredion Korea Incoperated	-	Ion Tower Rubber Lining
Samsung C&T	Gangneung Anin Thermal Power Plant Units 1&2 FGD WWT System	Pipes & Fittings
KC Cottrell	Gangneung Anion Thermal Power Plant Units 1&2 FGD System	FGD Piping Spool
Goseong Green Power Co., Ltd.	Goseong Hai Thermal Power Plant Units 1&2 FGD WWT System	Pipes & Fittings
Korea Midland Power Co. Ltd.	Shinseocheon Thermal Power Plant (1000MW X 1)	FGD Piping Spool
LOTTE CHEMICAL	-	Anion Tank (D-4508A)
LOTTE FINE CHEMICAL	-	RETURN BRINE TANK (T-080)

05 Construction performance



We are successfully carrying out lining work with **secondary battery-related** companies.



Various types of rubber products are also made-to-order and used in the **national defense industry.**



Certificates

06 Certificates

Business Registration Certificate

사업자등록증 (법인사업자)

등록번호 : 133-81-22356

법인명 (단체명) : 정화폴리테크공업(주)

대표자 : 김근필

개업연월일 : 1992년 07월 15일 법인등록번호 : 135011-0036993

사업장소재지 : 경기도 시흥시 경제로 95(정왕동)

본점소재지 : 경기도 시흥시 경제로 95(정왕동)

사업의종류 : ☒제조업 ☐고무제품
접기, 가스, 증기 및 공기조절 공업 태양력 발전업

발급사유 :

사업자 단위 과세 적용사업자 여부 : 여() 부(✓)

전자세금계산서 전용 전자우편주소 : poly2474@jeongwha.co.kr

2023년 02월 09일

시흥세무서장

Certificate of Factory Registration

문서확인번호: 1548-6579-8863-9670 (신청인 : 정화폴리테크공업)

■ 산업집적활성화 및 공장설립에 관한 법률 시행규칙 [별지 제8호의2서식] <개정 2012.10.5>

공장설립관리시스템(www.farmis.go.kr)에서도 신청할 수 있습니다.

공장등록증명(신청서)

※ 비밀번호가 어두운 난문 신청번호에 적지 않으며, []에는 해당되는 곳에 √표를 합니다.

(일괄)

접수번호	접수일	처리기간	측사
신청인	회사명	전화번호	
	정화폴리테크공업(주)	031) 499-2474	
	대표자 성명	생년월일(법인등록번호)	
	장영진	135011-0036993	
	대표자주소(법인소재지)		
	경기도 서울시 경제로 95, [정왕동 1249-7, 시화단지 1라507] (정왕동)		
등록 내용	공장소재지	지목	보유구분
	도로명 : 경기도 서울시 경제로 95, [정왕동 1249-7, 시화단지 1라507] (정왕동)	공장용지	자가 [√] 임대 []
	지번 : 경기도 서울시 정왕동 1249 7번지		
	공장등록일 2013-12-09	사업시작일	증업원수 남:81 여:10
	공장의 업종(분류번호) 그 외 기타 고유제품 제조업 (22199)		
	공장부지면적 9,009.600 m ²	제조시설면적 5,243.940 m ²	부대시설면적 1,512.990 m ²
등록 조건	유효기간 : - - - -		
등록비점·증설등 기재사항 변경내용(변경 날짜 및 내용)		공장관리번호 : 413902013993576	
2018-07-25			
사 유 : 대표자 변경 : 홍현준 → 장영진			
「산업집적활성화 및 공장설립에 관한 법률 시행규칙」 제12조의3에 따라 위와 같이 공장등록증명서를 신청합니다.			
2019년 1월 28일		신청인 정화폴리테크공업(주) (서명 또는 인)	
시용시청 귀하			
구비서류	회 료	수수료 1000 원	
처리절차			
신청서작성 신청인	→ 접수 처리기간	→ 등록 여부 확인 처리기간	→ 공제 처리기간
		→ 공장등록 증명서 발급 처리기간	→ 종료 처리기간
「산업집적활성화 및 공장설립에 관한 법률」 제16조([] 제1항· [] 제2항· [] 제9항)에 따라 위와 같이 등록된 공장임을 증명합니다.			
2019년 1월 28일			
시용시청			

210mm×297mm [일반용지 70g/㎡ (재활용품)]

감함률 / 1월28일 15:46

◆본 증명서는 인터넷으로 발급되었으며, 정부24(gov.kr)의 인터넷발급문서진위확인 서비스를 통해 위·변조 여부를 확인할 수 있습니다. (발급일로부터 90일까지) 또한 문서하단의 바코드로도 진위확인(정부24 앱 또는 스캐너를 문서확인프로그램)을 할 수 있습니다.

06 Certificates

ISO 9001



GERMAN CERT
Quality Management System Certificate

Jeongwha Polytech Co., Ltd.

(1Ra-507 Sihwa Industrial Complex)
#95 Gyeongje-ro, Siheung-si, Gyeonggi-do, Korea

German Cert Co., Ltd. Hereby certifies that the Quality Management System of the above organization has been evaluated and found to be in line with the requirements of the following standard:

ISO 9001:2015

For the scope of
Design, Development and Manufacture of Rubber Roll, Lining(Rubber, Flake, Teflon, Glass, FBE, PVDF, PP, PE)

Certificate Number : **GQ-210014**

Initial Certification Date : 08 September 2009
Certification Date : 10 September 2021
Expiry Date : 17 August 2024
Issue Date : 10 September 2021

Daek Wooki

Scheme Manager





10F, Jeongwoo Bldg, Yousido-dong, Eunhaeng-ro 29, Yeongdeungpo-gu, Seoul, 07238, Korea
This certificate is a sole property of GERMAN CERT and therefore shall be returned to it upon its request. (Rev.0)

ISO 14001



GERMAN CERT
Environmental Management System Certificate

Jeongwha Polytech Co., Ltd.

(1Ra-507 Sihwa Industrial Complex)
#95 Gyeongje-ro, Siheung-si, Gyeonggi-do, Korea

German Cert Co., Ltd. Hereby certifies that the Environmental Management System of the above organization has been evaluated and found to be in line with the requirements of the following standard:

ISO 14001:2015

For the scope of
Design, Development and Manufacture of Rubber Roll, Lining(Rubber, Flake, Teflon, Glass, FBE, PVDF, PP, PE)

Certificate Number : **GE-210468**

Initial Certification Date : 01 June 2010
Certification Date : 03 September 2021
Expiry Date : 26 May 2022
Issue Date : 03 September 2021

Daek Wooki

Scheme Manager





10F, Jeongwoo Bldg, Yousido-dong, Eunhaeng-ro 29, Yeongdeungpo-gu, Seoul, 07238, Korea
This certificate is a sole property of GERMAN CERT and therefore shall be returned to it upon its request. (Rev.0)

06 Certificates

ISO 45001



Certificate of Qualification from National Power Plant



06 Certificates

Certificate of trademark registration

발급번호 : 2-5-2021-046374613

상표등록증
CERTIFICATE OF TRADEMARK REGISTRATION

등록 제 40-1717828 호
Registration Number

출원번호 제 40-2020-0039439 호
Application Number

출원일 2020년 03월 10일
Filing Date

등록일 2021년 04월 20일
Registration Date

상표권자 Owner of the Trademark Right
정화플리테크공업 주식회사(135011-*****)
경기도 시흥시 경제로 95 (정왕동)

상표를 사용할 상품 및 구분
List of Goods

제 17 류
배관용 플라스틱제 신축관등 20건

위의 표장은 「상표법」에 따라 상표등록원부에 등록되었음을 증명합니다.
This is to certify that, in accordance with the Trademark Act, a trademark has been registered at the Korean Intellectual Property Office.

2021년 04월 21일

특허청
KOREAN INTELLECTUAL PROPERTY OFFICE

김응래

발급일자 : 20210421

1/1

발급번호 : 2-5-2021-046374613

상표등록증
CERTIFICATE OF TRADEMARK REGISTRATION

등록 제 40-1717829 호
Registration Number

출원번호 제 40-2020-0039438 호
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상표권자 Owner of the Trademark Right
정화플리테크공업 주식회사(135011-*****)
경기도 시흥시 경제로 95 (정왕동)

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KOREAN INTELLECTUAL PROPERTY OFFICE

김응래

발급일자 : 20210421

1/1

발급번호 : 2-5-2021-046374613

상표등록증
CERTIFICATE OF TRADEMARK REGISTRATION

등록 제 40-1717830 호
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상표권자 Owner of the Trademark Right
정화플리테크공업 주식회사(135011-*****)
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2021년 04월 21일

특허청
KOREAN INTELLECTUAL PROPERTY OFFICE

김응래

발급일자 : 20210421

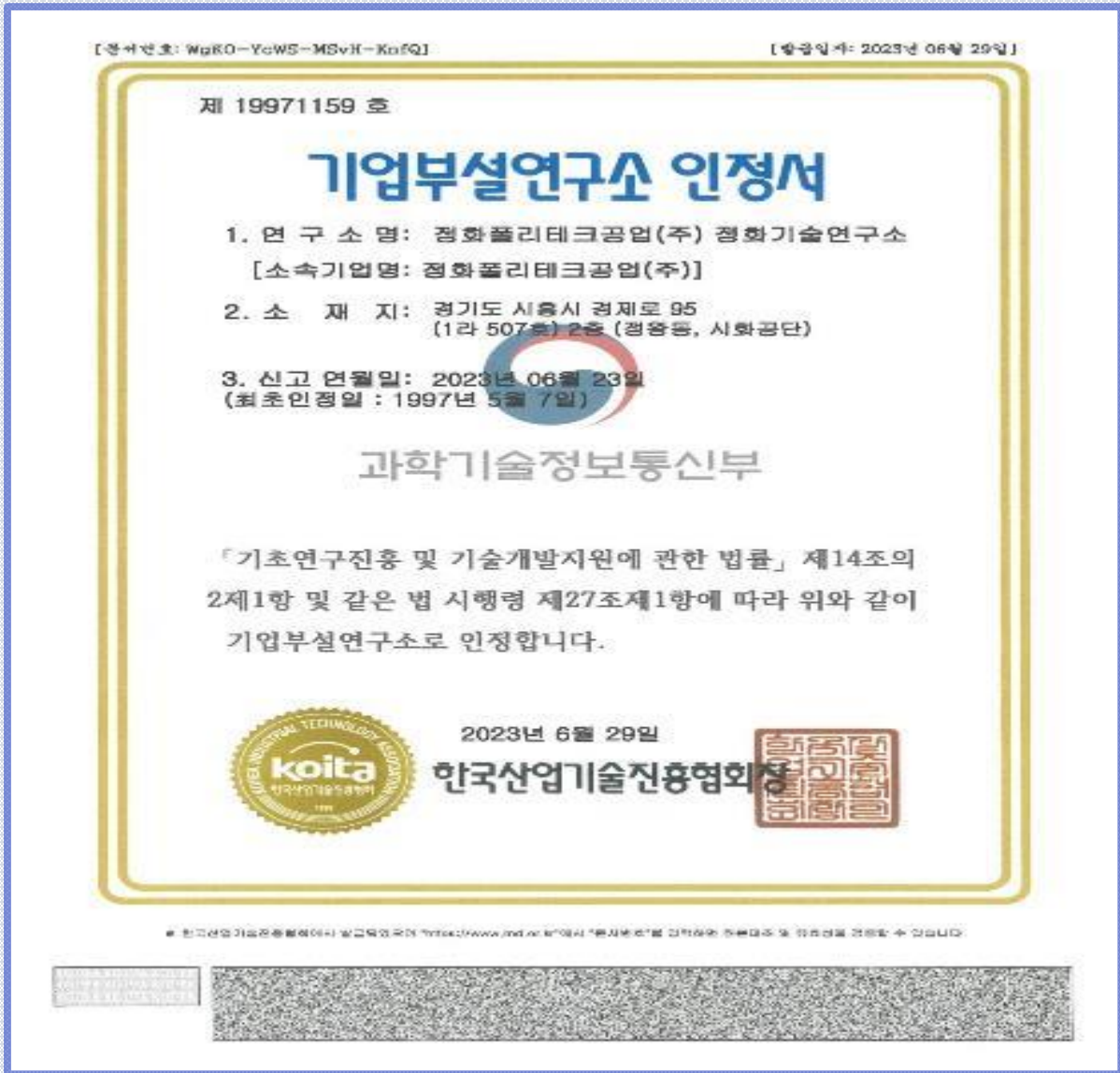
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Appendix

Continuous R&D for quality



Certificate of Corporate Affiliated Laboratories



Jeongwha's lab is not satisfied with the current quality and is constantly engaged in research and development to satisfy customers, such as enhancing rubber's unique characteristics, reducing costs and diversifying items.

Thank you