

# TAEKWANG NEWTEC CO., LTD.

Leading Manufacturer for

**GREENHOUSE PE FILM - TAJO®**

**POLYCARBONATE SHEET - PLAGLAS®**

**PETG / APET SHEET - PLASTAR®**

**PMMA SHEET - ACLEADER®**



- **Establishment: April, 04. 1974**
- **Products: PE Film and Plastic Sheet**
- **Main office: Seoul, Korea**
- **1<sup>st</sup> Factory: Chungju-city, Korea**
- **2<sup>nd</sup> Factory: Miryang-city, Korea**
- **Overseas Branch: Almaty, Kazakhstan**

Products	Item	Brand	Capacity (Ton / Year)
<b>Agricultural PE film</b>	PE FILM	TAJO®	18,000
	PO COATING FILM	TAJO® COATING	2,000
<b>Master batch</b>	PE MASTER BATCH	TAJO® MB	2,000
<b>Plastic sheet</b>	POLYCARBONA TE SHEET	PLAGLAS®	5,000
	PETG / APET SHEET	PLASTAR®	1,500
	PMMA SHEET	ACLEADER®	3,500
<b>Total:</b>			<b>32,000</b>



# HISTORY

<u>1974 / 04</u>	<u>Founded Taekwang Resin Industry</u>	<u>2010 / 01</u>	<u>Established MIRYANG factory, The 1<sup>st</sup> introduction and production of long lasting coating film in Korea</u>
1976 / 04	Established Taekwang Resin Industrial Co., Ltd.	2012 / 08	NANO Coating agents & Greenhouse Coating development through IRPE R&D Project
1980 / 09	Moved to BANWOL Industrial Complex (6,000 Ton)	2013 / 06	Automotive lightweight glazing development through KEIT technology development industry
1989 / 11	Selected as a promising small business by Industrial Bank of Korea	2014 / 06	Chungju factory expansion (MB and film facility expansion)
<u>1992 / 03</u>	<u>Relocated to CHUNG-JU factory with expansion</u>	<u>2015 / 06</u>	<u>Introduced Factory Automation system (MAW, TEW, product conveying and packaging process) Launched agro 5layer TAJO PO coating film</u>
	Introduced WIDE 3 layer film production facility (16,000 Ton)	<u>2016 / 02</u>	<u>Developed the 1st biodegradable mulching film in Korea</u> <u>Developed and launched Diffusion light film</u>
1994 / 11	Awarded the Iron Tower Order of Industrial Service Merit	2017 / 04	Acquired certification of technological achievement by NICE information service
<u>1996 / 06</u>	<u>1<sup>st</sup> Introduction of PET sheet production facility in Korea</u>	<u>2018 / 05</u>	<u>Launched Super Heavy duty greenhouse film (TAJO ULTRA)</u>
1996 / 09	Started to produce PET sheet (UL mark & FDA approval)	<u>2018 / 07</u>	<u>Launched high performance Warmth mulching film (TAJO CNT)</u>
1998 / 03	Selected as a venture company by Korea Venture Business Association	<u>2018 / 07</u>	<u>Launched high performance Non-sticky cover film for low tunnel(TAJO AJOTA)</u>
<u>1998 / 07</u>	<u>Expansion on wide 3 layer facility at CHUNG-JU factory (20,000 ton)</u>	<u>2018 / 07</u>	<u>Launched high performance Low tunnel film (TAJO POGNEE)</u>
1999 / 09	Changed the name of company to TEAKWANG NEWTEC CO., LTD.	<u>2019 / 01</u>	<u>Launched white 100% Opaque Roof ing film (TAJO BRAVO ROOF)</u>
<u>2001 / 04</u>	<u>Introduction of Polycarbonate sheet production facilities</u>	<u>2020 / 02</u>	<u>Installed Dual production line for PMMA &amp; PC</u>
2001 / 12	Awarded as an Excellent Company by Industrial bank of Korea		
<u>2002 / 12</u>	<u>Established a company-affiliated R&amp;D Institute</u>		
2006 / 01	Selected as a technology innovation medium enterprise by INNOBIZ		
2007 / 11	Acquired certificate of affiliated research institute (Industrial Technology Promotion Association No. 20071127)		
<u>2008 / 05</u>	<u>Enabled to do <b>own MB production</b> on functional additives</u>		





# Agricultural PE Film Line-up

- TAJO® PO Coating Greenhouse Film (5layers with long lasting)
- TAJO® Premium Gold Greenhouse Film (Top Premium)
- TAJO® Top Super EVA Greenhouse Film (Overwintering)
- TAJO® Jangsoo Greenhouse Film (Long life)
- TAJO® Solar White Greenhouse Film (Light reduction)
- TAJO® Diffusion Greenhouse Film (Light Diffusion)
- TAJO® Bravo Roof Film (100% opaque)
- TAJO® Pognee Low-Tunnel Film (Row cover)
- TAJO® Mulching Film (Soil Protection)





# GREENHOUSE PE FILM

## TAJO® PO Coating

- Polyolefin(PO) coated for 3~5years durability of Anti-fog & Anti-drip.
- Copolymer 5layer construction provides superior film properties.
- High transparency and strength allow better heat retainability and long lasting.

## TAJO® Premium gold

- Superior formula helps energy saving, early harvest & better crop yield
- Copolymer 3layer construction provides excellent film properties.
- Recommended crops: Strawberry, Watermelon, Cucumber and High Value Vegetables
- Special heat agent locks temperature to prevent from premature oxidation

## TAJO® Top super EVA

- Overwintering film against cold climate to reduce temperature fluctuation.
- Copolymer 3layer construction provides excellent film properties.
- Recommended crops: Strawberry, Tomato, Cucumber & High Value Vegetables

## TAJO® Light Diffusion

- Diffused light reaches plants from many different angles, helping the plants to receive a more even distribution of light without getting scorched.
- Temperature fluctuations during day & night are reduced.
- The light diffusion film is white, but has equivalent sunlight transmittance compared to other ordinary PE films.

## TAJO® Jangsoo : Супер Долгосрочный

- Long life is guaranteed by outstanding strength and durability against wind and snow.
- Copolymer 3layer construction provides excellent film properties.
- Most selling item with high performance recognition to many fields.

## TAJO® Solar White / TAJO® Long White

- Lower transmit(55~60%) and high diffusion allows lower heat in daytime and reduction on temperature fluctuation in night time.
- Less demand for watering. Reduces the need for greenhouse shading while still providing excellent PAR light.
- UV stabilized for up to 4years of film life.



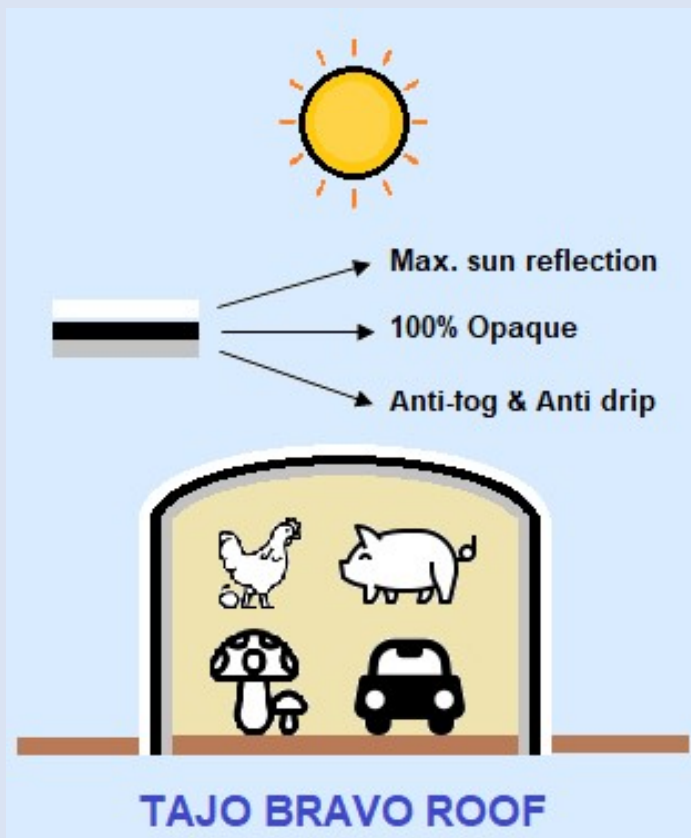
# SPECIALTIES & OTHERS

## TAJO® Bravo Roof

- 100% opaque(White/Grey) during day & Minimize heat loss during night.
- Outer layer reflects sun light / Middle layer blocks sun light / Inner layer provides anti-drip & anti-fog.
- Recommended crops & use: Mushrooms, Livestock house, Tent, Warehouse & Garage requiring light block.

## TAJO® POGNEE (Low-Tunnel)

- Enhanced formula provides maximum heat retention in low-tunnel for early harvesting.
- Non-sticky at high temperature will increase the life of use.
- Protects crops from wind, rain, hail and insects.
- Avoids soil from drying-out.



## TAJO® Mulching

- Durable color ground film improves crop quality & soil protection
- Prevents from weed spread and water loss under the film
- Prepunching is available on request
- Available Colors: Black, Green and White/Black.
- Biodegradable option available. (MOQ 1ton)





# Why Greenhouse?



## >Longer growing season

Offers a more controlled climate for growing, swinging temperatures to extend the growing seasons by weeks or months.

## >Weather protection

Protects from harsh weather condition by diffusing intensive sun ray during hot day or minimizing temperature fluctuation over cold night.

## >More plant options

Offer a much warmer and humid environment than the outdoors to allow more warm-vegetables like exotic plants.

## >Protection from pest and bugs

Enclosed structure protects the plants from pests and predators like moles, deer, and birds. It will increase the quality of plant with better production.

## >Energy efficiency

A lots of heating bill can be reduced during winter time by adding double out layer film or low tunnel.

## >Lower building cost

Greenhouse PE film is the most cost effective way to build greenhouse.



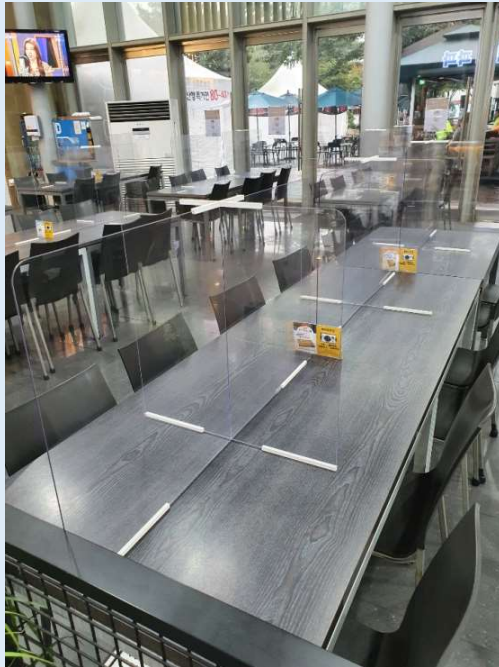
# PLAGLAS® Polycarbonate sheet < Part 1 >

## CHARACTERISTICS

- Transparency (100% virgin resin) with high impact resistant.
- 50% weight & 200 times stronger than glass and 30 times stronger than acrylic.
- Available in Clear, Color tinted translucent, White diffused & Embossed.
- Able to form at room temperature without cracking or breaking.
- Extra hard & UV coating available on surface.
- 5years & 10years limited warranty for breakage and light transmittance.
- Available options for Hard coating, Anti-static, Anti-glare, Anti-fog & Extra Flame retardancy

## APPLICATION

- Covid19 protection as Sneeze guard, Partition, safety shields and protective gear
- Building & Construction like Greenhouse, Skylight, Shelters and etc.
- Appliances like refrigerators, air condition, mixers, washing machine & etc.
- Outdoor signs, Backboard, Protective wear
- Vandal resistant window, riot shield

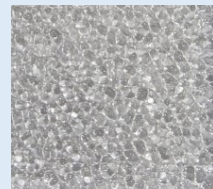




## PLAGLAS® Standard Specifications

Type	Thickness	Width	Color
SOLID	0.8~10mm	1,000~2,050mm	Clear, Brown, Blue, Smog(Gray), Green, Black, White
EMBO	1.8~4.5mm	1,000~2,050mm	
Cross Stripes EMBO	1.8~4.5mm	1,000~2,050mm	
Light Diffusion	1.8~4.5mm	1,000~2,050mm	Light Diffusion White

- Frame Resistance is Available (UL 94 V-0 certificate)
- UV Co-Extrusion 40~60 micron is available



<<EMBO

Cross stripes  
EMBO>>

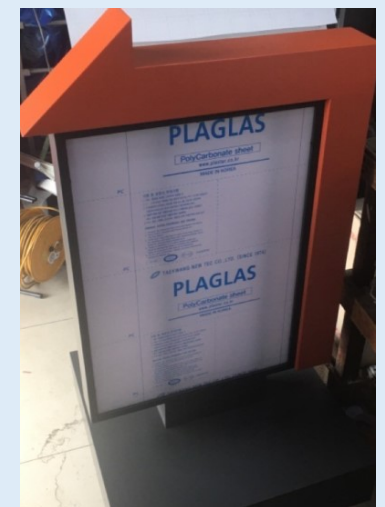
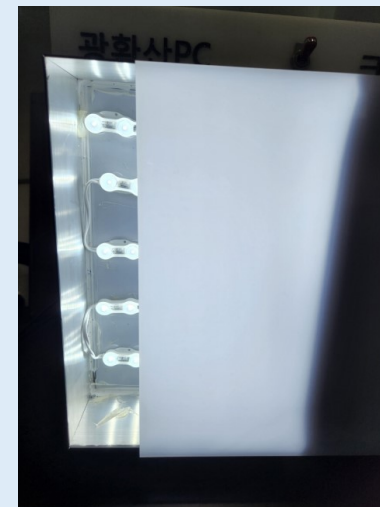
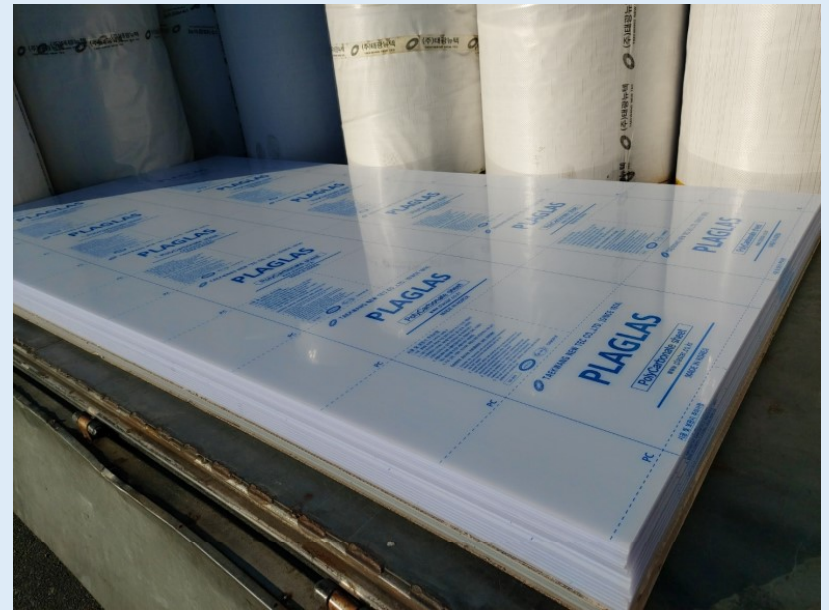




# PLAGLAS® Polycarbonate Light diffuser sheet < Part 2 >

## CHARACTERISTICS

- Natural white color with 45% light transmittance is optimized for LED channel sign.
- 30times stronger than ordinary Acrylic. NO chipping & NO breakage by stapler gun and drilling for LED channel sign. (SPEEDY channel sign production time)
- NO LED module dots are shown on LED light box or channel sign.
- Thickness from 1.8mm / 2.0mm / 2.8mm / 3.0mm / 4.5mm
- Available width: 1,000mm to 2,050mm
- Length : 2000mm to 30,000mm

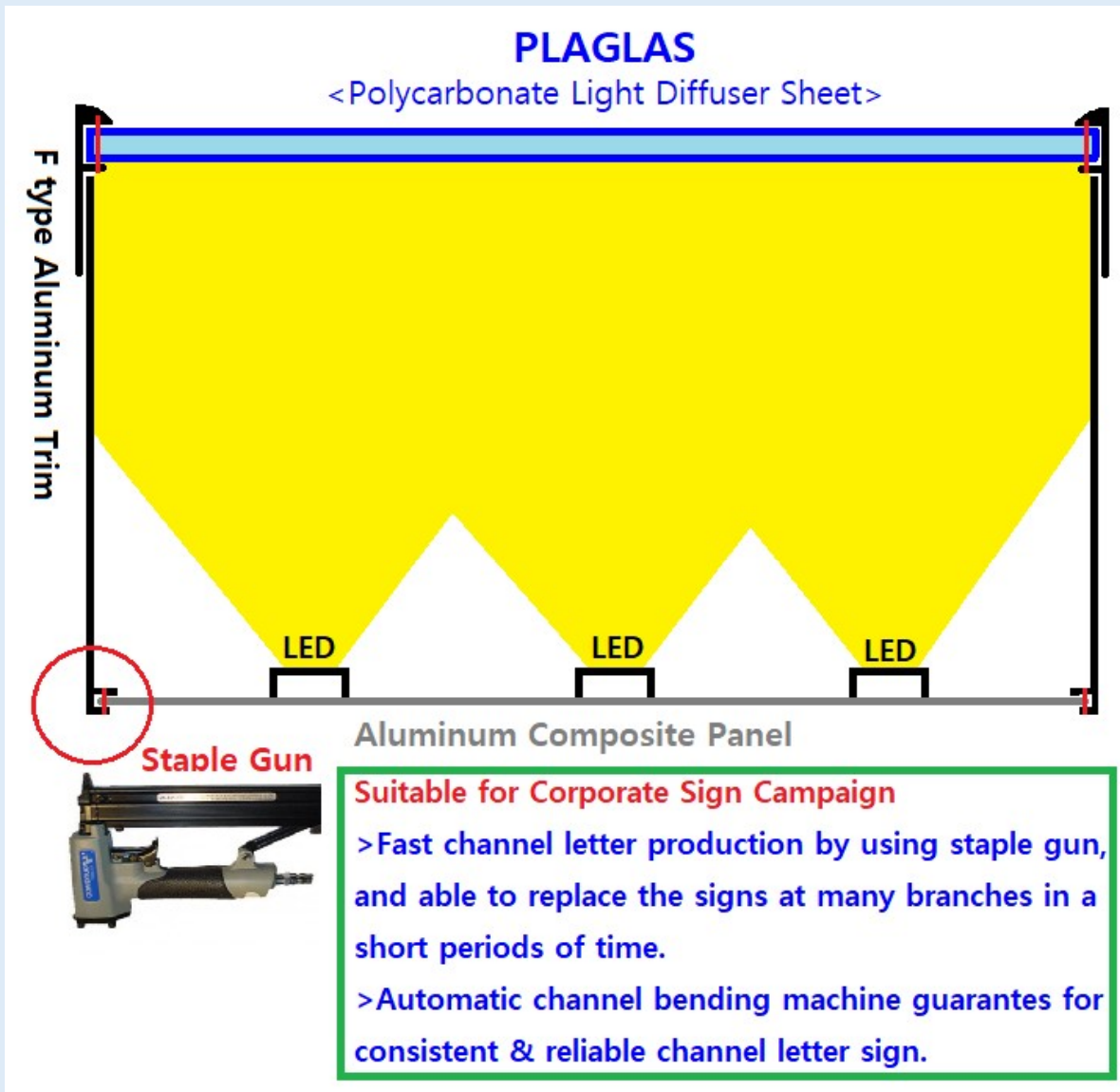


<Light diffusion PC>

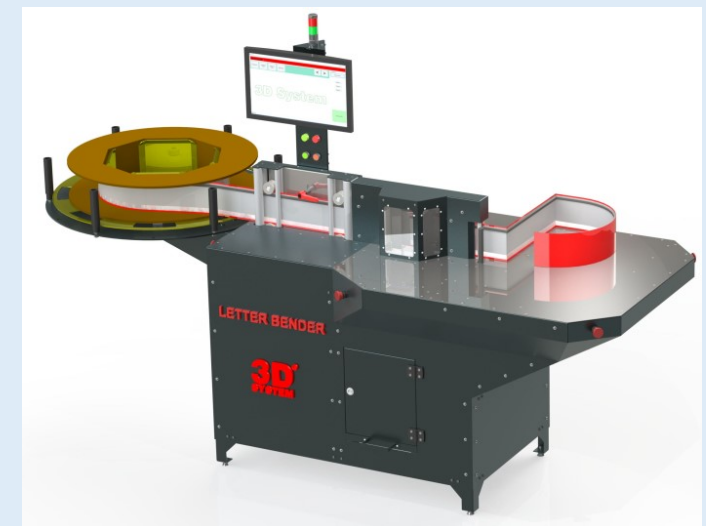




## PLAGLAS® Polycarbonate Light diffuser sheet < Part 3 > Best Solution for LED Channel Letter Signs!



<F type Aluminum trim>



<Channel Bending Machine>



# Anti-static Polycarbonate & PMMA sheet

## CHARACTERISTICS

- Prevents static by decreasing electrical resistance on the plastic surface.
- Surface resistivity 10^6 ~ 10^8
- Adhesion and chemical resistance & Surface hardness

Coating Type	Substrate	Thickness	Width	Length	Coating surface side	Remarks
Anti Static (ESD)	Polycarbonate & PMMA sheet	0.5mm to 10mm	1010mm	2020mm	Single & Double sides	Working size Width:-40mm x Length-40mm
			1240mm	2440mm		
			1520mm	3020mm		
			2020mm	4020mm		



Clean rooms for semiconductor facility and processing lines



Display panels for electronic products



TV Screen panel and lcd module windows



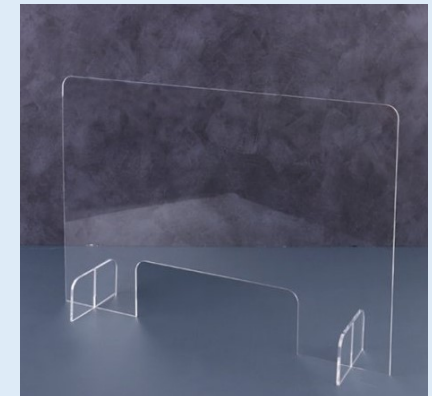
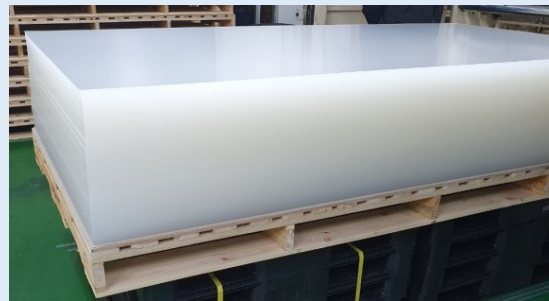
# ACLEADER® PMMA(Acrylic) sheet

## CHARACTERISTICS

- Excellent transparency (100% virgin resin) with good impact resistance & most scratch resistant among other plastics.
- Light weight & Excellent UV & chemical durability
- Available in Clear, Color tinted translucent & White diffused
- Extra hard & UV coating available on surface.
- Available options for Hard coating, Anti-static, Anti-glare, Anti-fog & Extra Flame retardancy

## APPLICATION

- Covid19 protection as Sneeze guard & Office partition
- Sound-proof walls, Skylight, & Shelters
- Signs, Point-of-purchase display & Backboard
- Aircraft windows, Medical device, Machine covers & etc.



# PLASTAR® PETG & APET sheet

## CHARACTERISTICS

- Excellent clarity and light transmission
- Good chemical resistance & approved for use in medical & food applications (FDA)
- Good impact resistance & excellent thermoforming properties
- PETG can be printed, silk screened or hot stamped
- APET is suitable for cold bending

## APPLICATION

- Covid19 protection as Sneeze guard, Partition, face shield
- Any applications requiring extensive thermoforming
- Clamshell packaging
- Heat bending
- Point of purchase
- Machine guards
- Signage & LED sign





## >HEADQUARTER

### TAEKWANG NEWTEC CO., LTD.

16, SEONYU-RO 9GA-GIL, YEONGDEUNGPO-GU,  
SEOUL, (ZIP 07281) KOREA

TEL +82-2-3662-2367 / FAX +82-2-3661-7513

WHATSAPP / WECHAT: +82-10-4641-4413

[sales@plastar.co.kr](mailto:sales@plastar.co.kr) / [jun@plastar.co.kr](mailto:jun@plastar.co.kr) / [jbk@plastar.co.kr](mailto:jbk@plastar.co.kr)

## >FACTORY1 AND R&D CENTRE

### TAEKWANG NEWTEC CHUNGJU FACTORY

11, SSIREUMTEO-GIL, GEUMGA-MYEON, CHUNGJU-SI,  
CHUNGCHONGBUK-DO, KOREA

## >FACTORY2

### TAEKWANG NEWTEC MIRYANG FACTORY

39-4, CHODONGNONGGONGDANJI-GIL,  
CHODONG-MYEON, MIRYANG-SI,  
GYEONGSANGNAM-DO, KOREA

## >OVERSEAS SALES BRANCH IN KAZAKHSTAN

### TAEKWANG NEWTEC KZ

BOSTANDYK DISTRICT, STREET TIMIRYAEV,  
BUILDING 42, 2ND FLOOR, ROOM 15/107,  
POSTAL CODE 05005, KAZAKHSTAN, ALMATY  
TEL : +7 (727) 345 0505 FAX : +7 (727) 345 0505

