

FIRE-RETARDANT SPRAY-APPLIED FIRE RESISTIVE MATERIALS FIRE PROTECTION COATINGS FOR STEEL, WOOD AND CABLES

ABOUT RAINBOW



1951 Company founded in Kaohsiung City.
1991 Honored by the CPC Kaohsiung Oil.
Refinery as an Accredited Paint and
Coatings Supplier....



1951	Company founded in Kaohsiung, Taiwan
1975	Technological Cooperation with UK's Berger Jenson & Cholson and Japan's Kobe Paints for the Production of Marine Coatings
1983	Moved to current production site (Southern Taiwan)
1988	Technological Cooperation with USA's Ameron International to produce high solids & Heavy-duty Coatings.
1989	Technological Cooperation with Belgium's Sigma for the production of Coil Coatings.
1990	Successfully Developed Fire Production Coatings.
1991	Honored by CPC Kaohsiung Oil Refinery as an Accredited Paint and Coatings Supplier.
1993	Developed Cementitious-mixture which Passed UL Testing and Listed in UL Flame Retardant Encyclopedia.
1994	Qualified supplier for national defence industry Taiwan.
1996	<ul style="list-style-type: none">•Technological Cooperation with Holland's Sigma to Produce Marine Coatings•Obtain Germany's TUV and B.S.M.I ISO 9001 International Quality certificate, and receive Water-Based Coating Environmental Award.

1998	Public listed on Taiwan Stock Exchange
2000	Developed FM-900, Oil-Based Expandable Fire Protection Coating.
2002	China-Kunshan Plant Start Operation.
2003	China-Kunshan Plant Obtain ISO 9001:2000 Certificate.
2004	Purchase new site at No.28 Yen Hai 3rd., Kaohsiung , Taiwan.
2005	Participating in Water-proofing Construction of Taiwan High Speed Rail Project.
2006	Vietnam-Amata Plant Start Operation.
2008	<ul style="list-style-type: none">•ISO9001:2008 certificate obtained for plants in Taiwan, Kungshan and Vietnam.•Construction of Malaysia plant, and the capital fund incremented to NT\$1.62 billion.
2009	Malaysia-Malacca Plant Start Operation.
2010	Purchase new site at No.24 Yen Hai 3rd., Kaohsiung, Taiwan.

2011	<ul style="list-style-type: none">•28th May: Held the 60th anniversary and employee's sports games.•17th June: Held the shareholder's meeting and the 7th Board of Director's Reelection Meeting.•CHANG, Der-Shiung, President and CHANG, Der-Jen, General Manager assumed the office.
2013	America-Fontana Plant Start Operation.
2014	<ul style="list-style-type: none">•Construction of Taiwan-Tian Yung R&D Center.•16th June: Held the shareholder's meeting and the 8th Board of Director's Reelection Meeting.•Alex Shen, President, President and H. W. Chen, General Manager, General Manager assumed the office.

CERTIFICATES



ISO



TUV



UL



BS



Green Mark



GBM



CNS

ISO Certifications

- June 1996 obtained ISO9001 certificaion by the TUV Germany. (Certificate)
- Sep. 1996 obtained ISO9001 cerification by the Bureau of Standards, Metrology and Inspection, MOEA. (Certificate)

UL Certifications

- Fire Protection Coatings (interior) -UL File No. R14635-Design No. D778 、D768 、Y701 、Y703 、Y706 、Y711, Inverstigated for Exterior Use.-GREENGUARD UL2818 Standard Gold Standard **Certification 1** **Certification 2**
- Epoxy Intumscent Fire-Retardant Coating- File No. R14644
- Solvent-based Intumscent Coating -File No. R13583
- Fire Protection Coatings (interior) -No. R14635-Design No. XR713 、N770 、Y706 、Y716 、Y717, Inverstigated for Exterior Use.-GREENGUARD **Certification 1** **Certification 2**
- Water-based Intumscent Fire-Retardant Coating-File No. R13583

BS Certifications

- No. C105787 、C110854 、C114287 、C114288 、C114381 、C114 tabeo
- No. TE92771 、TE94121 、TE94123
- Solvent-based Intumscent Fire Resistance Mastic Coating

MOI Application

- F-1, F-100, FM-900

Green Mark

- NO.450 Flat lavender
- NO.450 Flat oriental cherry red
- NO.450 Flat beige
- NO.450 Flat lily white
- NO.450 Gloss lavender
- NO.450 Gloss sky water blue
- NO.450 Gloss lily white
- NO.450 Gloss beige
- NO.450 Flat orange
- NO.450 Flat barley white
- NO.450 Flat rose white
- NO.450 Flat white
- NO.450 Gloss green
- NO.450 Gloss white
- NO.450 Gloss rose white
- Gloss Emulsion Paint



GBM MARKER

- FM-906 Firecut Water-base expansion Fire-resistant Putty Coating
 - NO.421 Water-based elastomeric finish coat
 - NO.428 New Home Paint - Flat Enamel
 - NO.432 Easy Clean Emulsion Paint
 - NO.436 Emulsion Paint, Mat
 - NO.450 Gloss Emulsion Paint
 - NO.450 Flat Emulsion Paint
 - NO.500-1 Flat Emulsion Paint-2
 - NO.650 Flat Emulsion Paint
 - NO.860 Flat Emulsion Paint-2
 - NO.1015AS Epoxy finish coat
 - NO.1030 Water-based Epoxy finish coat
 - UP-200 Indoor Flooring PU
 - YWP Water-based Woodenware finish coat
 - GOLDEN EMULSION PAINT, FLAT
- NO.406 FM Water-based Cement Paint (outdoor)
 - NO.424 Water-based Cement Paint (outdoor)
 - NO.428 New Home - Glossy
 - NO.433 Golden Acrylic Emulsion Paint
 - NO.436 Emulsion Paint, Mat-2
 - NO.450 Gloss Emulsion Paint-2
 - NO.450-1 Water-based Cement Paint - half flat enamel
 - NO.500-1 Flat Emulsion Paint
 - NO.650 Gloss Emulsion Paint
 - NO.860 Flat Emulsion Paint
 - NO.1030 Water-based Epoxy finish coat-2
 - SA3000 Water-based Elastomeric Dust-resistant Paint
 - YWP Water-based Woodenware Primer
 - Rainbow Emulsion Paint -Flat enamel

CNS Certification

- CNS A2091 Construction Waterproofing PU.
 - CNS K2011 Enamel Paint
 - CNS K2020 Red Oxide Primer (2nd Type)
 - CNS K2031 Traffic Paint (1st Type)
 - CNS K2050 Heat-Resisting Paint
 - CNS K2086 Epoxy Zinc-free Primer
 - CNS K2088 Inorganic Zinc Dust Primer (solvent type)
 - CNS K2089-2 Epoxy Paint (2nd Type)
 - CNS K2089-4 Epoxy Paint (4th Type)
 - CNS K2090 Epoxy Bituminous Paint (Type 1)
 - CNS K2091 Water-based Cement Paint (Type 1)
- CNS K2006 Ready-mixed Paint (Synthetic Resin Type)
 - CNS K2020-1 Red Oxide Primer (1st Type)
 - CNS K2029 Alykd Enamel Paint
 - CNS K2041 Acid-Resisting Paint
 - CNS K2070 Chlorinated Rubber Finish
 - CNS K2087 Epoxy Zinc Rich Primer
 - CNS K2089-1 Epoxy Paint (1st Type)
 - CNS K2089-3 Epoxy Paint (3rd Type)
 - CNS K2090-2 Epoxy Bituminous Paint (Type 2)
 - CNS K2091-2 Water-based Cement Paint (Type 2)
 - CNS K2125 Solvent-based Cement Paint

NANO MARKER

- Certificate No. 2019-007
 - Certificate No. 2019-008
- Certificate No. 2019-020
 - Certificate No. 2019-021

RAINBOW SPRAY-APPLIED FIRE RESISTIVE MATERIAL

- **F-1**
- **F-100**



F-1 SPRAY-APPLIED FIRE RESISTIVE MATERIAL

FIRECUT F-1 is used for the interior and exterior steel structures of buildings with excellent adhesion. FIRECUT F-1 is formulated with materials such as cement, vermiculite, fiber (asbestos-free) and special inorganic fire protective materials, not only to keep cement rigid intensity also with the tough characteristic of interlaced fiber like net, and its physical properties are better than the similar products of market. When burning could not generate any toxic smoke and is still firm as in the beginning so without destruction will be arisen by fire storm.



Product Information

- 1. Excellent physical properties:** To be firm and light after drying, excellent compact, compression and bend resistance to suffer hits hard without flaking because of containing the anti-crack textile fiber even had fairish physical properties after flame burning for three hours without chalking or softening to bear convective wind of fire scene and guaranteed its fire protection strength.
- 2. Without containing asbestos:** The product is completely excluded any asbestos ingredient through the test of Building Performance Institute Experimental Group of Ministry of the Interior to prove, also smoking quantity is a zero through the test of American Underwriters Laboratories Inc. according to ASTM E84 (UL723) .
- 3. Self corrosive prevention:** The containing ingredients may inhibit the oxidation of iron and do not cause corrosion phenomenon to directly contact with the steel.
- 4. Easy application and low pollution:** Add water and stir then may spray immediately, good flowing and moderate viscosity. The finish can be topped various protective and decorative coatings. (optional) To apply the decorative coating not only may increase the colorful appearance also may protect the fire protection coating to avoid directly contacting with air pollution to consumedly extend warranty period.
- 5. Good quality and adequate supply:** Obtained Germany TUV CERT DIN EN ISO 9001:2000 Certification and joined Follow-up Server of American Underwriters Laboratories Inc. Production uses automatic equipment and annual capacity may reach 1,000,000 packages. The stability of quality and supply is absolutely better than domestic and foreign products.
- 6. Certifications of fire test:** A. Obtained American U.L. Certification according to UL 263 (ASTM E 119 “Tests the performance of walls, columns, floors, and other building components under fire exposure conditions” and registers in American Underwriters Laboratories Inc. annual issue fire-resistance directory, Design No. D778, N768, Y701, Y703, Y706 and Y711. B. Obtained Certification of National Building Materials Quality Supervision, Inspection and Fire Protection Center of Dujiangyan, Sichuan China according to GB14907-2002 and registered in official website of China National Building Materials Quality Supervision, Inspection and Fire Protection Center. C. Passed the test of England Bodycote Warringtonfire Global Safety according to BS 476, Part 21 : 1987.

F-100 SPRAY-APPLIED FIRE RESISTIVE MATERIAL

FIRECUT F-100 based on cement, vermiculite and special high chemical resistant fiber, and Is a no asbestos contenting inorganic fire protection material for exterior and interior use. It has rigid and tough characteristics also may resist rapidly rising temperature and polluted environment, and is the best fire protection coating for petrochemical plants and general industrial equipments.

Product Information

1. **Excellent physical properties:** Excellent compact, compression and bend resistance to suffer hits hard without flaking because of containing the anti-crack textile fiber even had fairish physical properties after flame burning for three hours without chalking or softening to bear convective wind of fire scene and guaranteed its fire protection strength.
2. **Very good weather resistance:** F-100 contains high chemical resistance special ingredients, although exposed in exterior polluted environment for a long term, but still keeps its high physical properties and fire protective performance. It passed the simulative test of atmospheric environment such as aging , high humidity, industrial air pollution, salt moisture and combined wet, ice, dry cycle etc for exterior of petrochemical industry through Underwriters Laboratories Inc. according to UL 1709.
3. **Without containing asbestos:** The product is completely excluded any asbestos ingredient through the test of Building Performance Institute Experimental Group of Ministry of the Interior to prove, also smoking quantity is a zero through the test of American Underwriters Laboratories Inc. according to ASTM E84 (UL723) .
4. **Self corrosive prevention:** The containing ingredient may inhibit the oxidation of iron and do not cause corrosion phenomenon to directly contact with steel.
5. **Easy application and low pollution:** Add water and stir then may spray or trowel immediately, good flowing and moderate viscosity. The finish can be applied various protective and decorative coatings. (optional) To apply the decorative coating not only may increase the colorful appearance also may protect the fire protection coating to avoid directly contacting with air pollution to consumedly extend warranty period.

Center.

Product Information

6. Good quality and adequate supply: Obtains Germany TUV CERT DIN EN ISO 9001:2000 Certification and joins Follow-up Server of American Underwriters Laboratories Inc. Production uses automatic equipment and annual capacity may reach 1,000,000 packages. The stability of quality and supply is absolutely better than domestic and foreign products. 7. Certifications of fire test: A. Obtained American U.L. Certification according to UL 1709 and registered in American Underwriters Laboratories Inc. annual issue fire protection dictionary, Design No. XR 713. B. Obtained American U.L. Certification according to UL 263 and registered in American Underwriters Laboratories Inc. annual issue fire protection dictionary, Design No. N770, Y706, Y716 and Y717. C. Obtained Certification of National Building Materials Quality Supervision, Inspection and Fire Protection Center of Dujiangyan, Sichuan China according to GB14907-2002 and registered in official website of China National Building Materials Quality Supervision, Inspection and Fire Protection

REFERENCES



No.	Project Name	Location	Sales(USD) (thousand)
1	Powerchip Technology Corporation	China, Anhui	\$476
2	CPT technology	China, Fukien	\$413
3	Fu-chen semiconductor	China, Fukien	\$238
4	SMIC	China, Shenzhen	\$238
5	Hkcelec	China, Chongqing	\$1,032
6	Taiwan Taoyuan International Airport	Taiwan, Taoyuan	\$556
7	Houshi power plant	China, Zhong Zhou	\$159
8	Xinhee design center	China, Xiamen	\$159
9	Long Chen Paper CO., LTD	China, Hubei	\$159
10	Kaohsiung Marriott Hotel	Taiwan, kaohsiung	\$2,680
11	Taipei Dome Complex	Taiwan, Taipei	\$3,100
12	Tao-zhu building	Taiwan, Taipei	\$2,700
13	Baharan	Iran	\$189

14	Shiraz Tandis complex	Iran	\$602
15	Jahantab mall	Iran	\$364
16	Rose mall	Iran	\$504
17	Pardis Noor Building	Iran	\$280
18	Maryam Building	Iran	\$210
19	Razi Insurance Building	Iran	\$133
20	Tehran Ayandeh Bank Building	Iran	\$252
21	Ettelaat Newspaper Building	Iran	\$140
22	Farmanieh	Iran	\$140
23	Hafez	Iran	\$63
24	Emaar Square – North Tower	Turkey, Istanbul	\$130
25	Thailand MRT station	Thailand	\$532

26	DA-LIN power plant funnel	Taiwan, kaohsiung	\$1,300
27	Formosa heavy industry, Philippines power plants	Philippines, Limay	\$580
28	Tianma Micro-electronics Co., Ltd	Pudong New District, Shanghai	\$159
29	Tianma Micro-electronics Co., Ltd	Pudong New District, Shanghai	\$635
30	AU Optronics Corporation	China, Kusan	\$1,587
31	Formosa Vietnam steel	Vietnam	\$11,905
32	Formosa USA	China Ningbo/ USA Texas	\$2,381
33	Royal	Iran	\$1,302
34	Tabriz Islamic Art University	Iran	\$1,203
35	Arash	Iran	\$700
36	Everdisplay optronics	China, Shanghai	\$2,337
37	Fujian Fuxin Steel CO., Ltd	China, Zhongzhou	\$5,556
38	Shihlien Chemical Industrial Jianhsu	China, Jianhsu	\$4,762
39	Garden by the Bay	Singapore	\$270
40	P&G headquarter	Singapore	\$160
41	Rayan Vanak	Iran	\$280
42	Istanbul Technical University - Office Buildings	Turkey, Istanbul	\$100
43	Abali	Iran	\$70







