



# Rust Preventives



**NAM YOUNG OIL CHEMICAL IND. CO., LTD.**

## 좋은 防鏽油의 選定은

製品價値의 保證과  
原價節減에 크게 寄與합니다.

The selection of best-quality  
anti-corrosion oils will greatly contribute  
to guarantee of product value and cost reduction

- 좋은 防鏽油의 選定方法
- How to select best quality anti-corrosion oils.
- 防鏽油 性能試驗法
- Performance test method of anti-corrosion oils.
- 防鏽油 製品一覽表
- Products Catalogue
- 防鏽油의 使用法
- How to use anti-corrosion oils.
- 防鏽油의 管理와 除去法
- How to control and remove anti-corrosion oils.

### 좋은 防鏽油의 選定法(How to select best quality anti-corrosion oils.)

#### 選定條件

1. 防鏽期間 : 最終防鏽用인지 (長期)  
製造工程中的 防鏽인지(短期)
2. 對象品 : 完成品인지? 半製品인지?
3. 防鏽性 以外の 要求는?  
(가) 물이 묻어 있는 物品인가? (水置換生)  
(나) 指紋을 除去할 必要가 있는가?(指紋除去)  
(다) 어떤 潤滑性을 必要로 하는가?
4. 處理方法  
(가) 前處理(洗淨, 乾燥)  
(나) 塗布(붓칠, Spray 또는 浸漬인지)  
(다) 包裝(無包裝, 密封包裝, 皮膜保護包裝, 防鏽包裝)

上記 條件을 調査한 結果에 따라서 最適의 防鏽油를 選定  
합니다.

#### Selection Conditions

1. Anti-corrosion Period : For the final anti-corrosion(Long-term)?  
Anti-corrosion during manufacturing process(short-term)?
2. Object : Finished Goods? Semi-finished Goods?
3. Any demand except for anti-corrosion property?  
a) Any water on the products?(water-exchange ability)  
b) necessary to remove finger-print?(Finger-print removing)  
c) What property of lubrication is requested?
4. How to treat  
a) Ex-treatment(Washing, Drying)  
b) Application(Brushing, Spray of Dipping)  
c) Packing(Non-packing, closing-packing, anti-corrosion packing)

Choose the suitable anti-corrosion oils in  
accordance with the result of checking out the  
conditions, above.

#### 防鏽油 選定の 事例(Example of Anti-Corrosion Selection)

順番 No.	選定條件 (Selection Conditions)	TYPE(品種) TYPE Product kind	推漿品名 Recommended Product
例 1 (Example 1)	水溶性 研削液에 依한 研磨後의 部品, 作業間의 短期 防鏽→脫水洗淨性이 良好한 防鏽油 products grinded by soluble grinding fluids. Good anti-corrosion oils from short-term anti-corrosion to dewatering washing property	水置換性 軟質膜 Water-exchangeability	RUSZERO 246
例 2 (Example 2)	燒入冷却後 혹은 Press 加工後의 部品の 作業間의 短期 防鏽, 附着油의 洗淨性이 良好한 防鏽油 Short-term anti-corrosion of parts during operations after quenching cooling or press working Anti- corrosion of attached oils having best washing property.	溶劑稀釋型 軟質膜 Solvent-dilution Type. Soft Film.	RUSZERO 345
例 3 (Example 3)	工具類等의 最終防鏽, 長期間防鏽 仕上狀態(商品性) 膜이 堅固히 形成되어 끈적거리지 않음(乾性膜) Final anti-corrosion of tools. Long-term anti- corrosion Film is dride for the solid film formed.	溶劑稀釋型 樹脂系硬質膜 Solvent-dilution type. Resin-type hard film.	RUSZERO AS 乾性 (Dry Property)

## 防鏽油 性能試驗法 (KSM 2109) Performance Test Method of Anti-corrosion Oils(KSM2109)

防鏽油의 녹 防止性を 評價함에는 實際의 使用條件에 맞는 數種類의 試驗結果에 따라서 總合的으로 判定할 必要가 있다.

各各의 試驗法은 녹 發生의 要素가 다르기 때문에 規定된 試驗法, 試驗片을 採用하여 正確한 評價를 내리는 것이 重要하다.

It is necessary to judge anti-corrosion property suitable for the practical use conditions in accordance with several test results.

It is very important to evaluate employing regulated test method and test piece because the happening factors of each test method are different.

### 代表的인 試驗方法은

- 濕潤試驗
  - 目的: 高溫, 高濕에 있어서의 녹防止性を 評價한다.
  - 條件: 溫度  $49\pm 1^{\circ}\text{C}$  濕度 95% 以上 規定時間(사진 참조)
- 鹽水噴霧試驗
  - 目的: 海岸節과 近似한 條件下에서의 녹防止性を 評價한다.
  - 條件: 食鹽水  $5\pm 1\%$ 를  $35^{\circ}\text{C}$ 로 판넬面에 對하여  $0.5\sim 3.0\text{ml}/80\text{cm}^2/\text{hr}$ 의 比率로 噴霧한다. (사진참조)
- 格納貯藏試驗
  - 目的: 비, 바람이나 直射日光에 바래지 않는 경우의 녹防止性を 評價한다.
  - 條件: 百葉箱子를 利用 시험편을 傾斜지게 하여 ( $15^{\circ}$ ) 實施한다. (KS에는 規定되어 있지 않음)
- 屋外暴露試驗
  - 目的: 屋外에서 使用하는 品種(硬質膜 Petrolatam, Grease型)의 녹防止性を 評價한다. (KS에는 規定되어 있지 않음)
- Oil Stain 試驗
  - 目的: 油燒나 기름의 찌들음 등의 發生의 有無를 評價한다.
- 水置換性試驗
  - 目的: 前工程의 未乾燥水分을 置換할 수 있는 能力을 評價한다.
- 鹽水浸漬試驗
  - 目的: 靜止된 海水속에 있어서의 녹防止性を 評價한다.
  - 條件: 規定된 人工海水, 溫度  $25\pm 2^{\circ}\text{C}$ , 20時間

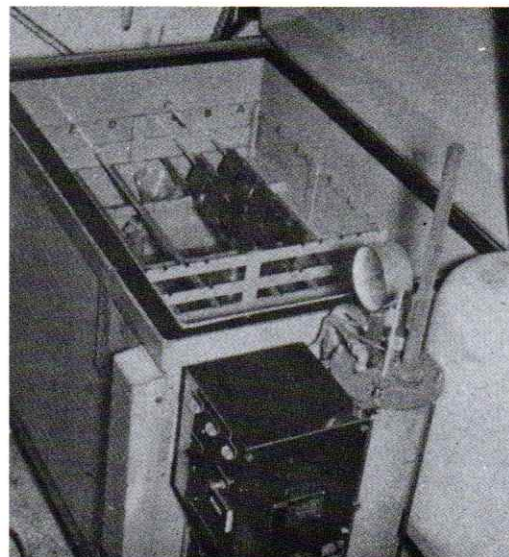
### Out Representing test method are

- Moisture Test
  - Purpose : Estimate rust-inhibiting property at high temperature and high moisture.
  - Condition : Temperature  $49\pm 1^{\circ}\text{C}$  Moisture 95% and over. (Regulated time) (Refer to the picture)
- Salt Spray Test
  - Purpose : Estimate rust-inhibiting property under the similar conditions to sea water.
  - Condition : Spring (solution of salt of  $5\pm 1\%$ ) at the rate of 0.5 to  $3.0\text{ml}/80\text{cm}^2/\text{hr}$  against panel side at  $35^{\circ}\text{C}$  (Refer to the picture)
- Housing Preservation Test
  - Purpose : Estimate rust-inhibiting property in case of being kept from rain/sind. direct shine.
  - Condition : Test it slanding test piece about 15 degree using
- Open Dew Test
  - Purpose : Estimate the rust-inhibiting property of the products used in the open air. (hard film Petrolatam. Grease type)
- Oil Stain Test(Not regulated in KS)
  - Estimate weather there is an oily dirt.
- Water Exchangeability Test
  - Purpose : Estimate the ability of exchanging none-dried water content of ex-process.
- Salt Oil bath test
  - Purpose : Estimate rust-inhibiting property at unmovable sea water

### 評價에 利用되는 測定法(Measuring Method used in estimation)



濕潤試驗器(Moisture Test)



鹽水噴霧試驗器(Salt Oil bath test)

# 製品一覽表 (Products Catalogue)

KS 規格 (KS Standards) 品名을 靑文字로 表示한 것은 特히 長期防鏽에 最適이며 品名 바탕을 靑色으로 表示한것은 作業防鏽에 最適인.

品名 및 品種 Product Name Kind of Product	狀態 色相 State Color	性能 (Performance)		防 鏽 期 間 Anti-corrosion Period		用 途 及 特 性 Application
		濕潤試驗(h) Moisture test	鹽水噴霧試驗(h) (Salt spray test)	屋 內 (In door)	屋 外 (Open door)	
Ruszero 指紋除去 (Finger-Print) 特指紋除去 (Removing Special Removing.) (KS NP-0)	溶劑稀釋 油狀 茶褐色 Solvent Dilution Oil state Liver Brown	720 A級 1440 A級	-	3 個月 (3 month)	-	指紋除去型. 洗滌中和劑의 結合體로 指紋除去性, 洗滌性을 갖고 있다. 製品加工 工程間의 一時防鏽用. 除去性이 좋다. Finger-Print removing type. Assembly of washing neutralizing agent. Good washing property. Easy to remove during working process.
Ruszero 10K 10L (KS NP-1)	溶劑稀釋 乾性 黑色 Solvent Dilution Dry Black	1440 A級 2160 A級	168 A級 360 A級	2 個年 (2 Year)	1 個年 (1 Year)	硬質膜. 아스팔트系의 硬質膜을 形成, 銅板, 銅管, 케이블, 태엽, 체인 齒車, 鑄鐵等의 防鏽用으로 最適. 10K는 薄膜型. Hard Film. Forming hard film of asphalt type. Suitable for copper plate, copper pipe, cable, watch spring, chain, etc. 10K is thin film type.
Ruszero 20-1 20 (KS NP-2)	溶劑稀釋 油狀 暗綠色 Solvent Dilution Oil state Dark Green	1440 A級 720 A級	168 A級 72 A級	1 個年 (1 Year)	3 個月 (3 month)	軟質膜. 溶劑揮發後 부드러운 베스트 狀被膜을 形成한다. 스프링, 齒車스프링 사후트, 샤프트, 태엽等의 防鏽用. 20-1은 薄膜型. Soft Film. Spindle, Spring shaft, watch spring, etc. 20-1 is thin film type.
Ruszero 30 30-1 (KS NP-3)	溶劑稀釋 油狀 茶褐色 Solvent Dilution Oil state Liver Brown	720 A級 1080 A級	24 A級 48 A級	3 個月 (3 month) 6 個月 (6 month)	-	水置換性軟質膜. 洗滌性 및 水置換性을 갖고 있다. 製品加工 工程間의 一時防鏽 精密仕上面의 金屬防鏽用으로서 最適인. Nonstain性이 特히 優秀함. Water-exchangeability soft film. having washing neutralizing agent and water-exchangeability. Suitable for temporary anti-corrosion is working process, and metal anti-corrosion. Excellent non-stain property.
Ruszero 30J 30J - 1 (KS NP-3)	溶劑稀釋 油狀 蒸褐色 Solvent Dilution Oil state Brown	720 A級 1080 A級	24 A級 48 A級	3 個月 (3 month) 6 個月 (6 month)	-	水置換性軟質膜. 洗滌性 및 水置換性을 갖고 있다. 製品加工 工程間의 一時防鏽 精密仕上面의 金屬防鏽用으로서 最適인. Nonstain性이 特히 優秀함. Water-exchangeability soft film. having washing neutralizing agent and water-exchangeability. Suitable for temporary anti-corrosion is working process, and metal anti-corrosion. Excellent non-stain property.
Ruszero 40- 1 (KS NP-4)	Petrolatum 半固體 黃褐色 Petrolatum Semi-solid Yellowish-brown	2160 A級	360 A級	1 個年 (1 Year)	6 個月 (6 month)	Petrolatum. 硬質膜型으로 長期間 保存, 運送하는 境遇에 特效. 回轉軸受, 精密仕上面의 防鏽等. 使用時의 加熱溫度는 100~120℃ Petrolatum. Effective in preserving or transporting for a long time as hard film type. Circulating shaft, precision, anti-corrosion. Heating temperature is 90 to 120℃
Ruszero 50- 1 (KS NP-5)	同上 40-1보다 부드럽다 黃褐色 More milder than 40-1 Yellowish-brown	2160 A級	360 A級	1 個年 (1 Year)	3 個月 (3 month)	Petrolatum型. 用途는 40-1과 같으며 40-1보다 부드러운 中質膜型. 使用時의 加熱溫度는 90~110℃ Petrolatum. Effective in preserving or transporting for a long time as middle film type. Circulating shaft, precision, anti-corrosion. Heating temperature is 90 to 110℃
Ruszero 60- 1 (KS NP-6)	同上 50-1보다 부드럽다 黃茶褐色 More milder than 50-1 Yellowish-Liver brown	2160 A級	240 A級	1 個年 (1 Year)	3 個月 (3 month)	Petrolatum型. 用途는 50-1과 같으며 50-1보다 부드러운 中質膜型. 使用時의 加熱溫度는 80~100℃ Petrolatum. Effective in preserving or transporting for a long time as soft film type. Circulating shaft, precision, anti-corrosion. Heating temperature is 80 to 100℃

## 代表性狀表 (Representative Property Chart)

粘度 cSt(40°C) Viscosity cSt (40°C)	稠度(25°C) Penetration	引火点(C) Flash Point	流動点(C) Pour Point	融 点(C) Melting Point	膜 厚(μ) (Film μ)	品 名 (一般品) (Product Name Kind of Product)	用 途 Application
3,260 4,020	-	44 46	-	-	4.3 4.5	RF-0	
30°C 99.50 30°C 751.5	-	40 46	-	-	30.3 60.0	RF-10K RF-10L	大型機械(Plant 輸出 建設機械等)의 長期~最終防 鏽, 鋼管, Gear, Rail, Chain, Chassis, Roll, Wire Rope, Tank 등. Long term and final anti-corrosion of big-size machine, (Plant Export Building Equipment), steel pipe, Gear, rail, chain, chassis, Roll, wire rope, Tank, etc.
15.00 55.00	-	70 70	-	-	14.5 40.5	RF-20-1 RF-20	褶動棒의 長期, 또는 최종방청, Engine, 鋼, 鑄鐵 의 大型部品, 金型, Spring, Shaft. Long term and final anti-corrosion of shaft rod, engine, steels, big parts of cast iron, mold spring, shaft.
2,700	-	46	-	-	2.3	RF-30 RF-30-1	化成處理, 酸洗, Shot後, 水洗한 製品의 脫水, 洗 淨兼 防鏽 精密部品, 治具 및 一般品의 作業 工程間中 또는 短期防鏽 Dewatering products and washing & Anti- corrosion after washing with water after shot. Soluble cutting fluids, dewater after quenching. Short-term anti-corrosion of precision parts, jigs, general parts.
2,900	-	60	-	-	2.3	RF-30J RF-30J-1	摩擦의 中間 最終防鏽(30J-1). 研磨部品の 防鏽 (前處理劑특히 水分을 除去하십시오). Press加工 品, 熱處理部品の 防鏽. Aluminium Die Casting製 品의 防鏽. 線材, Spring, Chain部品. Middle-final anti-corrosion of friction(30J-1). Anti- corrosion of grinded parts.(remove ex- treating agent, especially water). Anti-corrosion of press working goods, heat-treating parts. aluminium die cast products, spring, chain parts.
-	52	280	-	76.8	-	RF-40-1	
-	122	260	-	74	-	RF-50-1	
-	203	230	-	65.0	-	RF-60-1	Bearing, Cylinder, Spindle, Piston, Gear, Valve 精密仕 上品. 金型 Chain Bolt 등 一般製品, 部品の 長期 保管~運搬의 防鏽. 工作器械의 褶動部 및 各種 組立機品用的 防鏽. Anti-corrosion of bearing, cylinder, spindle, piston, gear, valve, mold, chain, bolt of shaft part & assembly parts of numerical control machine in long term preservation and transportation.

品名 및 品種 Product Name Kind of Product	狀態 色相 State Color	性能 (Performance)		防 鏽 期 間 Anti-corrosion Period		用 途 及 特 性 Application
		濕潤試驗(h) Moisture test	鹽水噴霧試驗(h) (Salt spray test)	室 內 (In door)	室 外 (Open door)	
Ruszero 70- 1 (KS NP-7)	油狀 茶褐色 Oil state Liver Brown	720 A級 1080 A級	32A級 48A級	6 個 月 (6 month)	-	潤滑防鏽. 中質油. 耐濕潤, 耐鹽水性에 뛰어난 作動部等的 潤滑도 兼한다. 除去性良好. Lubrication anti-corrosion. Anti-moisture, anti-salt. Excellent removing-property.
Ruszero 80- 1 (KS NP-8)	油狀 연茶色 Oil state Light Brown	480 A級 720 A級	24 A級	3 個 月 (3 month)	-	潤滑防鏽. 硬質油. 小型機械, 精密仕上面, 潤滑도 兼한다. 除去性良好. Lubrication anti-corrosion. Small-size machines, Lubrication. Excellent removing-property.
Ruszero 90- 1 (KS NP-9)	油狀 연茶色 Oil state Light Brown	480 A級 720 A級	24 A級	3 個 月 (3 month)	-	潤滑防鏽. 特輕質油. 小型部品, 精密機械低溫, 作動部の 潤滑에도 優秀함. 除去性良好. Lubrication anti-corrosion. Hard oil, small parts, precision machine, low temperature, lubrication on driving parts. Excellent removing - property.
Ruszero 101-1 (KS NP-10.1)	油狀 茶褐色 Oil state Liver Brown	720 A級	鹽水浸漬 24 A級	3 個 月 (3 month)	-	潤滑防鏽. 硬輕油(SAE #10). 內燃機械 및 콤프레-사의 一時運轉. 一般防鏽 및 各種 作動部の 潤滑. 除去性良好. Lubrication anti-corrosion. S.A.E #10 internal combustion machines, temporary driving of compressor, general anti-corrosion, lubrication of various driving part. Excellent removing-property. (except for general supplies)
Ruszero 102-1 (KS NP-10.2)	油狀 茶褐色 Oil state Liver Brown	720 A級	鹽水浸漬 24 A級	6 個 月 (6 month)	-	潤滑防鏽. 重質油(SAE #30). 一般普及品 其外는 同上 條件에 使用됨. Lubrication anti-corrosion. S.A.E #30 internal combustion machines, temporary driving of compressor, general anti-corrosion, lubrication of various driving part. Excellent removing-property. (except for general supplies)
Ruszero 103-1 (KS NP-10.3)	油狀 茶브라이드 Oil state Liver bride	1080 A級	鹽水浸漬 24 A級	6 個 月 (6 month)	-	潤滑防鏽. 重質油(SAE #50). 用途는 特히 高溫時의 使用에 最適임. Lubrication anti-corrosion.. SAE #50, Suitable for the use at high temperature.

需要者の 要求에 依하여 誕生된 製品 (Prodcuts Bom by the request of consumer)

品名 및 品種 Product Name Kind of Product	狀態 色相 State Color	性能 (Performance)		防 鏽 期 間 Anti-corrosion Period		用 途 及 特 性 Application
		濕潤試驗(h) Moisture test	鹽水噴霧試驗(h) (Salt spray test)	屋 內 (In door)	屋 外 (Open door)	
Ruszero A乾性 (DRY) E乾性 (DRY) AS乾性 (DRY) CS乾性 (DRY)	溶劑稀釋 液 狀 速乾性~乾性 無色透明~黃色 Solvent Dilution Fluid Quick Drying Transparent to yellow	240 A級 720 A級 720 A級 1440 A級	-  168A級	6 個 月 (6 month)	-  1 個 年 (1 Year)	樹脂系硬質膜. A乾性은 超速乾性. E,AS,CS乾性은 速乾性, 部品, 製品の 長期防鏽 商品性을 重視하는 境遇에 特히 最適임. 亦是 黃色으로 着色한 製品도 있음. (A乾性 Y等) Water-exchangeability soft film. strong washing strength. Middle anti-corrosion of steel plate. Non-stain type. Excellent removing-property.
Ruszero BS 乾性(DRY) (KS NP-19)	溶劑稀釋 乾 性 茶褐色 Solvent Dilution Dry Liver Brown	1440 A級	168A級	1 個 年 (1 Year)	6 個 月 (6 month)	硬質膜 長期保存用 Soft Film. Anti-corrosion will be longer as a sequence of 340, 345, 525, J-36.

粘度 cSt(40℃) Viscosity cSt (40℃)	稠度(25℃) Penetration	引火点(℃) Flash Point	流動点(℃) Pour Point	融 点(℃) Melting Point	膜 厚(μ) (Film μ)	品 名 種 類 (一般品) (Product Name Kind of Product)	用 途 Application
91.60	-	218	- 15	-	-	RF-70 70-1	機械裝置의 作動部의 潤滑 兼 防鏽. 一般機械 및 部品の 1次 防鏽-中期防鏽. Gear Box. 金型. Wire. Lubrication and anti-corrosion on driving part of machine. The 1st and middle anti-corrosion of general machines and parts.
18.06	-	158	- 27.5	-	-	RF-80 80-1	機械裝置의 常溫 및 低溫에서의 作動部의 潤滑 兼 防鏽. 一般機械 및 部品の 一次~ 短期 防鏽. 消火器, 精密部品. Bolt, Nut 등. Lubrication and anti-corrosion on driving part of machine. at normal and low temperature. The 1st and middle anti-corrosion of general machines and parts. Precision parts, bolt nut, etc.
13.69	-	148	- 30	-	-	RF-90 90-1	주로 屋內에서의 一般機械類. 部品等の 中間防 鏽으로 短期用(3個月 以上)防鏽. 但, 防鏽處理前 에 被處理物의 裝面을 精淨하게 하십시오. Short-term anti-corrosion of general machinery, parts, etc in doors.(over 3 months) Clean the surface of the products to be anti-corrosion treated.
33.00 (-18℃ 1700)	-	194	- 30	-	-	RF-101 101-1	
100℃ 10.40	-	238	- 20	-	-	RF-102 102-1	
100℃ 19.80	-	260	- 10	-	-	RF-103 103-1	

粘度 cSt(40℃) Viscosity cSt (40℃)	稠度(25℃) Penetration	引火点(℃) Flash Point	流動点(℃) Pour Point	融 点(℃) Melting Point	膜 厚(μ) (Film μ)	用 途 Application
30℃ 1,960	-	- 4	-	-	1.0	
30℃ 8,670	-	- 4	-	-	8.0	
30℃ 2,950	-	-	-	-	9.27	
30℃ 15.69	-	27	-	-	21.5	
30℃ 55.1	-	50	-	-	29.2	

品名 및 品種 Product Name Kind of Product	狀態 色相 State Color	性能 (Performance)		防 鏽 期 間 Anti-corrosion Period		用 途 及 特 性 Application
		濕潤試驗(h) Moisture test	鹽水噴霧試驗(h) (Salt spray test)	屋 內 (In door)	屋 外 (Open door)	
Ruszero 310 315 246	溶劑稀釋 油 狀 淡褐色~淡茶褐色 Solvent Dilution Oil State to Dark Dry Liver Brown	1080A級 720A級 720A級	48A級 - 24A級	3 個月 (3 month)	-	水置換性軟質膜. 洗淨력이 특히 強함. 315는 水分離성이 一層 良好. 部部, 鋼板等の 中間防鏽油, 논스테인 Type0이며 除去성이 良好. Excellent in KS NP-2 type non-stain property.
Ruszero 340 345 S-25 J-36	溶劑稀釋 油 狀 黃褐色~茶褐色 Solvent Dilution Yellow Brown to Liver Brown	720A級 720A級 1080A級 1440A級	24A級 - 48A級	3 個月 (3month) 6 個月 (3month)	-	軟質膜. ~鑄鐵 共히 效果를 갖는 Type. 防鏽時間은 340, 345,S-25, J-36의 順으로 길어진다. Low-viscosity lubrication anti-corrosion. KS, NP-9 type low-viscosity type. High flash point, non-stain. Excellent moving-property.
Ruszero 20-3 (KS NP-2)	溶劑稀釋 油 狀 黃褐色 Solvent Dilution Oil state Yellow-brown	1440A級	168A級	1 個 年 (1 Year)	-	KS NP-2系의 논스테인성에 특히 優秀하다. Lubrication Anti-corrosion. General Anti-corrosion and lubrication on driving part middle viscosity between NP-8 and NP-7.
Ruszero R-935 R-965 R-940	油 狀 茶褐色 Oil state Liver-brown	720A級 720A級 1080A級	- 24A級	3 個月 (3month) 6 個月 (6month)	-	低粘度潤滑防鏽. KS, NP-9의 低粘度型. 引火點이 높고(第4種-3石)耐寒性, 논스테인성이 豐富하여 薄鋼板의 防鏽에 最適임. 除去性 良好. For Non-ferrous metals. (C for steels, AL for Aluminium, Zn for zinc) Middle anti-corrosion of products, parts, and Available as lubrication oils.
Ruszero R-765	油 狀 黃褐色 Oil state Yellowwish-Brown	720A級	24A級	6 個月 (6 month)	-	潤滑防鏽. 一般防鏽 및 作動部의 潤滑. KS規格에 없는 粘度 Type로 P-8과 NP-7의 中間粘度임. Concentrated anti-corrosion agent. Used after being diluted as selected voluntarily. Suitable for petroleum solvent. MP is suitable for middle anti-corrosion agent.
Ruszero C-30 AL-236 Zn-15-1	油 狀 淡黃色 Oil state Dark Yellow Brown	銅板-720A級 Aluminum板-360A級 亞鉛板-720A級	-	6 個月 (6 month) 3 個月 (3 month)	-	非鐵金屬用. (C 는 鋼用, AL은 알루미늄用, ZN은 亞鉛用임.) 製品, 部品の 中間防鏽 및 潤滑油로서 도 使用 可能함. Possible to manufacture KS products by adding 5 to 10% of anti-corrosion additive to each base oil. (Rus Fighter Conc.)
Ruszero RB Ruszero MP	油 狀 茶褐色 Oil state Liver-brown	原液-1440A級 原液- 720A級	原 液-48A級 原 液-48A級	3 個月 (3 month) 1 個 年 (1 Year)	-	濃縮型防鏽劑. 任意로 選定된 油劑로 稀釋 使用함. 稀釋油劑는 石油溶劑~鑄物油가 適合함. MP 는 물 및 油에 溶解되는 에말존 Type으로 中間防鏽용으로 適合함. Concentrated anti-corrosion agent. Used after being diluted as selected voluntarily. Suitable for petroleum solvent. MP i suitable for middle anti-corrosion agent.
Ruszero C	油 狀 粘稠狀 茶褐色 Oil state Light Brown	10%~720A級	10%~24 A級	3 個月 (3 month) 1 個 年 (1 Year)	3 個月 (3 month)	RusFighter Conc 는 各 Base Oil에 防鏽添加劑로서 5~10% 添加함으로서 KS規格品の 製造가 可能함. Possible to manufacture KS products by adding 5 to 10% of anti-corrosion additive to each base oil. (Rus Fighter Conc.)
Ruszero 62W	Petrolatum Paste狀 白色 Petrolatum paste state White	2160 A級	240 A級	1 個 年 (1 Year)	3 個月 (3 month)	White Petrolatum. 外觀을 특히 重視하는 製品에 適合하며 紡機, 食品關係等の 機械에 最適임. 使用時의 浸漬加熱溫度는 70~100°C White Petrolatum. Suitable for the fine-appeared products. Oil bath heating temperature is 70 to 100°C
Ruszero 135	Ba系 Grease 茶褐色 Ba-type Grease Liver Brown	2160 A級	96 A級	1 個 年 (1 Year)	3 ~ 6 個月 (3~6 month)	潤滑GREASE 135는 耐酸 GAS性에 뛰어나. Lubrication Grease. Rus 135 is excellent in anti-acid gas.



粘度 cSt(40℃) Viscosity cSt (40℃)	稠度(25℃) Penetration	引火点(C) Flash Point	流动点(C) Pour Point	融点(C) Melting Point	膜厚(μ) (Film μ)	備考 Application
1.300 1.300 2.020	-	44 44 58	- - -	- - -	- - -	
2.400 4.100 6.720 5.140	-	68 68 68 64	- - - -	- - - -	- - - -	
17.26	-	72	-	-	-	
3.300 7.950 3.400	-	94 100 98	- 30 - 30 - 50	- - -	- - -	
62.50	-	210	-12.5	-	-	
28.90 2.200 12.00	-	196 64 148	- 17.5 - 20 - 15	- - -	- - -	
51.00 37.84	-	130 105	- 22.5 -	- -	- -	
100℃ 28.50	-	164	-	-	-	
-	207	230	-	56	-	
-	349	-	-	滴点128	-	

# 防鏽의 使用法(How to use anti-corrosion)

防鏽油는 잘못쓰면 發鏽하여 損害를 招來하는 境遇가 있습니다.

1. 確實한 前處理의 實行이 必要합니다.
  - 가) 石油系溶劑에 의한 洗淨(燈油, 신나等 또는 Spray Brush等)
  - 나) 蒸氣洗淨(Perchloroethylene 蒸氣等)
  - 다) 알카리 洗淨(가성소다, 탄산소다, MeTa 硅酸소다 等の 알카리 液浸漬)
2. 녹, 腐蝕이 없는 것을 確認하여야 합니다. (녹이 있는 境遇에는 녹을 떨어버리고 洗淨하여야 함)
3. 充分히 乾燥시키십시오. (赤外線, 溫風乾燥等)
4. 塗布의 仕方(乾燥후 即時 實行하십시오)
  - 製品の 形狀크기, 防鏽油의 種類에 따라서 使用하는 方法은 다음과 같습니다.
  - 가) 浸漬한다.
  - 나) Spray에 의한 吹體(大型品에 適切)
  - 다) Brush로 塗布(일룩지게 바르기 쉽기 때문에 몇번 이고 반복 도포하여 均一 塗布狀이 되도록 注意하십시오.)

1. Necessary to do perfect ex-treatment
  - a) Washing by petroleum-type solvent. (punching Oil, spray bush, etc.)
  - b) Steam washing(Perchloroethylene, etc)
  - c) Alkaline washing(Alkaline liquid dipping of NaOH, COH, Heta Si OH, etc)
2. Check whether there is any Rust or corrosion. (If there exists rust, firstly clean the rust and wash it.)
3. Drying for an enough time.(Infrared rays, hot wind drying).
4. Application(Apply immediately after drying)

The method is like the following in accordance with shape, size of products and kind of anti-corrosion oils.

- a) dip
- b) Coating by Spray(suitable for big-size products.)
- c) Apply with brush(Apply it so that the surface will be applied evenly without any spot.)

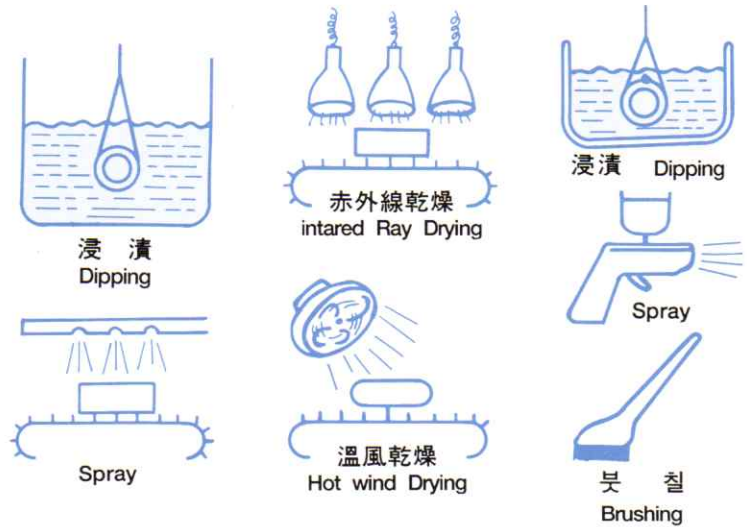
機械加工  
Machining

洗淨  
Washing

乾燥  
Drying

防鏽處理  
Anti-Corrosion

包裝  
Packing



## 防鏽油의 管理(How to Control)

### 保管 및 使用中의 管理에 關하여

1. 保管은 室內에서 直接日光과 熱이 닿지 않도록 한다.
2. 使用中 물, 먼지 다른 油劑의 混入이 없도록 한다.
3. 使用中 乾性防鏽油는 引火點이 낮음으로 火氣에 特別히 注意하여야 한다. (RUSZERO-A 乾性 4℃ RUSZERO 10K, 10L, E, AS, CS 乾性 25~44℃)
4. 加熱使用防鏽油는(Petrolatum)은 加熱 溫度가 필요 이상 높아지지 않도록 한다. 最高限度 120℃임. 100℃ 以上으로서 補充이 적은 長期使用은 防鏽性能 을 서서히 惡化시킴으로 注意하십시오. (最適溫度 는 一製品 一覽表의 用途와 特性을 表示한 項目을 參照하십시오.)
5. 浸漬槽는 使用後 卡-바해 두는것이 바람직합니다.
6. 長期保存한 境遇, 使用함에 있어 容器內의 OIL이 均一하게 되도록 잘 攪拌해 주십시오.

### Regarding preservation and control is use.

1. Keep it out of direct sun rays and heating in doors.
2. Prevent any ingress of water, dust or others in use.
3. be careful about fire because dry-type anti-corrosion oil has low flash point in use. (RUSZERO-A Dry-type:4℃) (RUSZERO 10K, 10L, E, AS, CS, Dry-type :25 to 44℃)
4. Control the heating temperature under designated temperature for petrolatum. The top temperature is 120℃
5. Cover up the dipping bath after use.
6. Agitate oils so that in container will be evenly in case of long-term preservation.

## 防鏽油의 除去法(Removing Method of Anti-Corrosion Oils)

### 다음중 어느 方法으로도 除去됩니다.

1. 石油系溶劑(白燈油, 솔벤트·신나)에 浸漬 또는 브 랫싱
2. Perchloroethylene 등의 蒸氣洗淨 및 浸漬
3. 알카리液(가성소다, 炭酸소다, MeTa 硅酸소다等 水 溶液의) 70~95℃로 加熱浸漬(3~10 分)

### (It may be removed by the following ways.)

1. Dipping or brushing to petroleum-type solvent(punching oil, solvent)
2. Steam washing and dipping of Perchloroethylene, etc.
3. Heating and Dipping Alkaline fluids at 70 to 95℃. (NAOH, COH, Heta SiOH, etc.) (3 to 10 minutes)

# 南永油化工業株式會社

## 本社・工場

京畿道 安山市 城谷洞 683-2

電話 : (0345) 492-8077~9

電話 : (0345) 492-4996~7

FAX : (0345) 494-4798

## 昌原事務所

電話 : (0551) 61-5962, 6105

FAX : (0551) 61-6105

## 釜山事務所

電話 : (051) 518-3557

FAX : (051) 515-2394

## HEAD OFFICE

NAM YOUNG OIL CHEMICAL IND. CO., LTD.

#683-2 SUNGGOK-DONG,

ANSAN-CITY, KYUNGKI-DO, KOREA

TEL : (0345) 492-8077~9

TEL : (0345) 492-4996~7

FAX : (0345) 494-4798