KARDEN UNIPRIME

PRODUCT CODE: KBK 020114 Marine Primer



I. DESCRIPTION OF PRODUCT AND THE PRODUCER GENERIC TYPE Anticorrosive, self primed epoxy universal paint DESCRIPTION, AREAS OF USE Two pack epoxy paint that could be dried in short times even at low temperatures down to -5°C. Resitance to seawater, oils, corrosion and abrasion are key features. Multiple coating systems at water ballast tanks and cargo oil tanks are available with this versatile product. PRODUCER INFORMATION Kartallar Boya ve Kimya Sanayi Ticaret Limited Sirketi Kosklucesme Mahallesi, Yeni Bagdat Caddesi, No:136, 41400 Gebze / KOCAELI / TURKIYE Monday-Saturday (08:30 – 18:00) Tel: 0262 641 49 67 Fax : 0262 641 49 68 EMERGENCY LINE Uludag University Poison Research Center (7/24) – +90 224 442 82 93

2. PRODUCT'S TECHNICAL & APPLICATION PARAMETERS

APPEARANCE Semi Matt (ASTM D 523) SPECIFIC GRAVITY 1.40±0.02 g/cm³ (ASTM D 1475) SOLID BY VOLUME %70±1 (ASTM D 2697) THINNER CODE K. Solv 1200 THINNER RATE %4-6 VOC CONTENT 282 g/L (ASTM D 3960) SPREADING RATE 5.5-6 sqm per liter when applied as single coat (I25 microns DFT) SINFACE DRY TIME 2 hours @20 °C THROUGH DRY 5-6 hours @20 °C COMPLETELY CUREO 7 days @20 °C COMPLETELY CUREO 7 days @20 °C CMPLETELY CUREO 7 days @20 °C HARDENER TYPE - COMP. MIXING RATID K-Cure 15000 , 4:1 on Volume METHOD OF APPLICATION Airless Spray, INLP Spray, lint free roller, brush NDZZIE INFD D.021" - 0.025" PRESSURE INFD 150-180 bars RECOMMENDED WET THICKNESS 175 microns DRY FLUX THICKNESS 125 microns MINIMUM RECOATING INTERVAL 4 hours @20		
SPECIFIC GRAVITY 1.40±0.02 g/cm³ (ASTM 0 1475) SDLD BY VOLUME %70±1 (ASTM 0 2697) THINNER CODE K - Solv 1200 THINNING RATE %4-6 VOC CONTENT 282 g/L (ASTM 0 3960) SPREADING RATE 5.5-6 sqm per liter when applied as single coat (125 microns DFT) SURFACE DRY TIME 2 hours @20 °C THROUGH DRY 5-6 hours @20 °C COMPLETELY CURED 7 days @20 °C HARDENER TYPE - COMP. MIXING RATIO K-Cure 15000 , 4:1 on Volume METHOD OF APPLICATION Airless Spray. HVLP Spray. lint free roller, brush NUZZLE INFD D.021" - 0.025" PRESSURE INFD 150-180 bars RECOMMENDED WET THICKNESS 175 microns DRY FILL THICKNESS 175 microns DRY FILL THICKNESS 125 microns MINIMUM RECOATING INTERVAL 4 hours @20 °C for K-Acryl IK , 15 days @20 °C for Karden Eposea. Karden Eposea. Karden Eposea and Karden Unimarine and Karden Premium MAXIMUM RECOATING INERVAL 10 hours @20 °C for K-Acryl IK , 15 days @20 °C for Karden Premium MAXIMUM RECOATING INERVAL 10 hours @20 °C for K-Acryl IK , 15 days @20 °C for Karden Premium MAXIMUM RECOATING INERVAL	COLOUR(S) / TEXTURE	Colors according to KBK Marine Color Card and RAL K7
SULD BY VOLUME %7D=L1 (QSIND 2 GB7) THINNER CDDE K. Solv (2 D0 THINNING RATE %4-6 VDC CONTENT 282 g/L (ASTM D 396D) SPREADING RATE 5.5-6 sqm per liter when applied as single coat (I25 microns DFT) SURFACE DRY TIME 2 hours @20 °C THROUGH DRY 5-6 hours @20 °C COMPLETELY CURED 7 days @20 °C HARDENER TYPE - COMP. MIXING RATIO K-Cure I5000, 4:1 on Volume METHOD DF APPLICATION Airless Spray, HVLP Spray, lint free roller, brush NOZZLE INFO 0.021" - 0.025" PRESSURE INFO ISO-I80 bars RECOMMENDED WET THICKNESS 1/5 microns DRY FILL THICKNESS 1/5 microns MINIMUM RECOATING INERVAL 4 hours @20 °C for K-Acryl IK . 4 hours @20 °C for Karden Eposea, Karden Eposea, Karden Unimarine and Karden Premium MAXIMUM RECOATING INERVAL 10 hours @20 °C for K-Acryl IK . 15 days @20 °C for Karden Premium MAXIMUM RECOATING INERVAL 10 hours @20 °C for K-Acryl IK . 15 days @20 °C for Karden Premium MAXIMUM RECOATING INERVAL (IMMERSION) 30 days @20 °C for Karden Epotie and Karden Unimarine, Karden Uniprime POT LIFE 2 hours @20 °C	APPEARANCE	Semi Matt (ASTM D 523)
THINNER CODE K. Salvi (200 THINNER CODE K. Salvi (200 THINNING RATE 964-6 VOC CONTENT 282 g/L (ASTM D 3960) SPREADING RATE 5.5-6 sqm per liter when applied as single coat (/25 microns DFT) SURFACE DRY TIME 2 hours @20 °C THROUGH DRY 5-6 hours @20 °C COMPLETELY CURED 7 days @20 °C HARDBERER TYPE - COMP. MIXING RATIO K-Cure 15000, 4:1 on Volume METHOD OF APPLICATION Airless Spray, HVLP Spray, lint free roller, brush NOZZLE INFO 0.021" - 0.025" PRESSURE INFO 150-180 bars RECOMMENDED WET THICKNESS 1/5 microns DRY FILM THICKNESS 1/5 microns DRY FILM THICKNESS 1/5 microns MINIMUM RECOATING INTERVAL 4 hours @20 °C for K-Acryl IK , 4 hours @20 °C for Karden Eposea, Karden Epotie and Karden Premium MAXIMUM RECOATING INTERVAL 4 hours @20 °C for K-Acryl IK , 15 days @20 °C for Karden Premium MAXIMUM RECOATING INERVAL(IMMERSION) 3D days @20 °C POT LIFE 2 hours @20 °C	SPECIFIC GRAVITY	1,40±0,02 g/cm³ (ASTM D 1475)
THINNING RATE %4-B VOC CONTENT 282 g/L (ASTM 0 3960) SPREADING RATE 5.5-6 sqm per liter when applied as single coat (I25 microns DFT) SURFACE DRY TIME 2 hours @20 °C THROUGH DRY 5-6 hours @20 °C COMPLETELY CURED 7 days @20 °C HARDBERER TYPE - COMP. MIXING RATIO K-Cure ISODO, 4:1 on Volume METHOD OF APPLICATION Airless Spray. HVLP Spray. lint free roller, brush NOZZLE INFO 0.021" - 0.025" PRESSURE INFO 150-180 bars RECOMMENDED WET THICKNESS 175 microns DRY FILM THICKNESS 125 microns MINIMUM RECOATING INTERVAL 4 hours @20 °C for K-Acryl IK , 4 hours @20 °C for Karden Eposea, Karden Epotie and Karden Unimarine and Karden Premium MAXIMUM RECOATING INERVAL 10 hours @20 °C for K-Acryl IK , 15 days @20 °C for Karden Premium MAXIMUM RECOATING INERVAL 10 hours @20 °C for K-Acryl IK , 15 days @20 °C for Karden Premium MAXIMUM RECOATING INERVAL 10 hours @20 °C for K-Acryl IK , 15 days @20 °C for Karden Unimarine, Karden Uniprime POT LIFE 2 hours @20 °C	Solid by volume	%70±1 (ASTM D 2697)
VDC CONTENT282 g/L (ASTM D 3960)SPREADING RATE56 sqm per liter when applied as single coat (I25 microns DFT)SURFACE DRY TIME2 hours @20 °CSURFACE DRY TIME2 hours @20 °CCOMPLETELY CURED7 days @20 °CCOMPLETELY CURED7 days @20 °CHARDENER TYPE - COMP. MIXING RATIDK-Cure ISDDD, 4:1 on VolumeMETHOD OF APPLICATIONAirless Spray, HVLP Spray, lint free roller, brushNOZZLE INFD0.021" - 0.025"PRESSURE INFDISD-I80 barsRECOMMENDED WET THICKNESS175 micronsDRY FILM THICKNESS125 micronsMINIMUM RECOATING INTERVAL4 hours @20 °C for K-Acryl IK . 4 hours @20 °C for Karden Eposea, Karden Epotie and Karden PremiumMAXMUM RECOATING INERVAL10 hours @20 °C for K-Acryl IK . 15 days @20 °C for Karden PremiumMAXMUM RECOATING INERVAL10 hours @20 °C for K-Acryl IK . 15 days @20 °C for Karden PremiumPDT LIFE2 hours @20 °C	THINNER CODE	K- Solv 1200
SPREADING RATE 5.5-6 sqm per liter when applied as single coat (I25 microns DFT) SURFACE DRY TIME 2 hours @20 °C THROUGH DRY 5-6 hours @20 °C COMPLETELY CURED 7 days @20 °C HARDENER TYPE - COMP. MIXING RATIO K-Cure I5000 , 4:1 on Volume METHOD OF APPLICATION Airless Spray, HVLP Spray, lint free roller, brush NDZZLE INFD 0.021" - 0.025" PRESSURE INFD ISO-180 bars RECOMMENDED WET THICKNESS 175 microns DRY FILM THICKNESS 125 microns MINIMUM RECOATING INTERVAL 4 hours @20 °C for K-Acryl IK , 4 hours @20 °C for Karden Eposea, Karden Epotie and Karden Unimarine and Karden Premium MAXIMUM RECOATING INERVAL 10 hours @20 °C for K-Acryl IK , 15 days @20 °C for Karden Premium MAXIMUM RECOATING INERVAL 30 days @20 °C for K-Acryl IK , 15 days @20 °C for Karden Unimarine, Karden Uniprime POT LIFE 2 hours @20 °C	THINNING RATE	%4-G
SURFACE DRY TIME 2 hours @20 °C THROUGH DRY 5-6 hours @20 °C COMPLETELY CURED 7 days @20 °C HARDENER TYPE - COMP. MIXING RATID K-Cure 15000 , 4:1 on Volume METHOD OF APPLICATION Airless Spray, HVLP Spray, lint free roller, brush NOZZLE INFD 0.021" - 0.025" PRESSURE INFD 150-180 bars RECOMMENDED WET THICKNESS 175 microns DRY FILM THICKNESS 125 microns MINIMUM RECOATING INTERVAL 4 hours @20 °C for K-Acryl IK , 4 hours @20 °C for Karden Eposea, Karden Epotie and Karden Unimarine and Karden Premium MAXIMUM RECOATING INTERVAL 10 hours @20 °C for K-Acryl IK , 15 days @20 °C for Karden Premium MAXIMUM RECOATING INTERVAL 30 days @20 °C for K-Acryl IK , 16 days @20 °C for Karden Premium MAXIMUM RECOATING INTERVAL (IMMERSIDN) 30 days @20 °C for Karden Epotie and Karden Unimarine, Karden Uniprime PDT LIFE 2 hours @20 °C	VOC CONTENT	282 g/L (ASTM D 3960)
THRDUGH DRY 5-6 hours @20 °C COMPLETELY CURED 7 days @20 °C HARDENER TYPE - COMP. MIXING RATIO K-Cure 15000 , 4:1 on Volume METHOD OF APPLICATION Airless Spray. HVLP Spray. lint free roller, brush NOZZLE INFO 0,021" - 0.025" PRESSURE INFD ISO-180 bars RECOMMENDED WET THICKNESS 1/5 microns DRY FILM THICKNESS 1/5 microns DRY FILM THICKNESS 1/2 microns MINIMUM RECOATING INTERVAL 4 hours @20 °C for K-Acryl IK . 4 hours @20 °C for Karden Eposea, Karden Eposea, Karden Unimarine and Karden Premium MAXIMUM RECOATING INTERVAL 10 hours @20 °C for K-Acryl IK . 15 days @20 °C for Karden Premium MAXIMUM RECOATING INTERVAL 30 days @20 °C for Karden Eposea Akarden Uniprime POT LIFE 2 hours @20 °C	SPREADING RATE	5,5-6 sqm per liter when applied as single coat (125 microns DFT)
COMPLETELY CURED 7 days @20 °C HARDENER TYPE - COMP. MIXING RATIO K-Cure ISDOD, 4:1 on Volume METHOD DF APPLICATION Airless Spray, HVLP Spray, lint free roller, brush NOZZLE INFO D,D21" - 0.025" PRESSURE INFO ISD-18D bars RECOMMENDED WET THICKNESS 175 microns DRY FILM THICKNESS 125 microns MINIMUM RECOATING INTERVAL 4 hours @20 °C for K-Acryl IK , 4 hours @20 °C for Karden Eposea, Karden Epotie and Karden Unimarine and Karden Premium MAXIMUM RECOATING INERVAL 10 hours @20 °C for K-Acryl IK , 15 days @20 °C for Karden Premium MAXIMUM RECOATING INERVAL 30 days @20 °C for K-Acryl IK , and the premium POT LIFE 2 hours @20 °C	SURFACE DRY TIME	2 hours @20 °C
HARDENER TYPE - COMP. MIXING RATIO K-Cure 15000, 4:1 on Volume METHOD OF APPLICATION Airless Spray, HVLP Spray, lint free roller, brush NOZZLE INFO 0.021" - 0.025" PRESSURE INFO 150-180 bars RECOMMENDED WET THICKNESS 175 microns DRY FILM THICKNESS 125 microns MINIMUM RECOATING INTERVAL 4 hours @20 °C for K-Acryl IK , 4 hours @20 °C for Karden Eposea, Karden Epotie and Karden Unimarine and Karden Premium MAXIMUM RECOATING INERVAL 10 hours @20 °C for K-Acryl IK , 15 days @20 °C for Karden Premium MAXIMUM RECOATING INERVAL 30 days @20 °C for K-Acryl IK , 15 days @20 °C for Karden Inimarine, Karden Unimarine POT LIFE 2 hours @20 °C	THROUGH DRY	5-6 hours @20 °C
METHOD OF APPLICATION Airless Spray, HVLP Spray, lint free roller, brush NOZZLE INFO 0,021" - 0.025" PRESSURE INFO 150-180 bars RECOMMENDED WET THICKNESS 175 microns DRY FILM THICKNESS 125 microns MINIMUM RECOATING INTERVAL 4 hours @20 °C for K-Acryl IK , 4 hours @20 °C for Karden Eposea, Karden Epotie and Karden Unimarine and Karden Premium MAXIMUM RECOATING INERVAL 10 hours @20 °C for K-Acryl IK , 15 days @20 °C for Karden Premium MAXIMUM RECOATING INERVAL 10 hours @20 °C for K-Acryl IK , 15 days @20 °C for Karden Premium MAXIMUM RECOATING INERVAL 10 hours @20 °C for K-Acryl IK , 15 days @20 °C for Karden Premium MAXIMUM RECOATING INERVAL 10 hours @20 °C for K-Acryl IK , 15 days @20 °C for Karden Premium MAXIMUM RECOATING INERVAL 10 hours @20 °C for K-Acryl IK , 15 days @20 °C for Karden Premium MAXIMUM RECOATING INERVAL 10 hours @20 °C for Karden Epotie and Karden Unimarine, Karden Uniprime POT LIFE 2 hours @20 °C	COMPLETELY CURED	7 days @20 °C
NOZZLE INFO 0,021" - 0.025" PRESSURE INFO ISD-180 bars RECOMMENDED WET THICKNESS I75 microns DRY FILM THICKNESS 125 microns MINIMUM RECOATING INTERVAL 4 hours @20 °C for K-Acryl IK , 4 hours @20 °C for Karden Eposea, Karden Epotie and Karden Unimarine and Karden Premium MAXIMUM RECOATING INERVAL 10 hours @20 °C for K-Acryl IK , 15 days @20 °C for Karden Premium MAXIMUM RECOATING INERVAL 10 hours @20 °C for K-Acryl IK , 15 days @20 °C for Karden Premium MAXIMUM RECOATING INERVAL (IMMERSION) 30 days @20 °C for Karden Epotie and Karden Unimarine, Karden Uniprime PDT LIFE 2 hours @20 °C	HARDENER TYPE – COMP. MIXING RATIO	K-Cure 15000 , 4:1 on Volume
PRESSURE INFD I5D-18D bars RECOMMENDED WET THICKNESS I75 microns DRY FILM THICKNESS I25 microns MINIMUM RECOATING INTERVAL 4 hours @20 °C for K-Acryl IK , 4 hours @20 °C for Karden Eposea, Karden Epotie and Karden Unimarine and Karden Premium MAXIMUM RECOATING INTERVAL 10 hours @20 °C for K-Acryl IK , 15 days @20 °C for Karden Premium MAXIMUM RECOATING INERVAL 10 hours @20 °C for K-Acryl IK , 15 days @20 °C for Karden Premium MAXIMUM RECOATING INERVAL (IMMERSION) 30 days @20 °C for Karden Epotie and Karden Unimarine, Karden Uniprime PDT LIFE 2 hours @20 °C	METHOD OF APPLICATION	Airless Spray, HVLP Spray, lint free roller, brush
RECOMMENDED WET THICKNESS 175 microns DRY FILM THICKNESS 125 microns MINIMUM RECOATING INTERVAL 4 hours @20 °C for K-Acryl IK , 4 hours @20 °C for Karden Eposea, Karden Epotie and Karden Unimarine and Karden Premium MAXIMUM RECOATING INERVAL 10 hours @20 °C for K-Acryl IK , 15 days @20 °C for Karden Premium MAXIMUM RECOATING INERVAL 10 hours @20 °C for K-Acryl IK , 15 days @20 °C for Karden Premium MAXIMUM RECOATING INERVAL (IMMERSION) 30 days @20 °C for Karden Epotie and Karden Unimarine, Karden Uniprime PDT LIFE 2 hours @20 °C	NOZZLE INFO	0,021" – 0.025"
DRY FILM THICKNESS 125 microns MINIMUM RECOATING INTERVAL 4 hours @20 °C for K-Acryl 1K , 4 hours @20 °C for Karden Eposea, Karden Epotie and Karden Unimarine and Karden Premium MAXIMUM RECOATING INERVAL 10 hours @20 °C for K-Acryl 1K , 15 days @20 °C for Karden Premium MAXIMUM RECOATING INERVAL 10 hours @20 °C for K-Acryl 1K , 15 days @20 °C for Karden Premium MAXIMUM RECOATING INERVAL (IMMERSION) 30 days @20 °C for Karden Epotie and Karden Unimarine, Karden Uniprime PDT LIFE 2 hours @20 °C	PRESSURE INFO	150-180 bars
MINIMUM RECOATING INTERVAL 4 hours @20 °C for K-Acryl IK , 4 hours @20 °C for Karden Eposea, Karden Epotie and Karden Unimarine and Karden Premium MAXIMUM RECOATING INERVAL 10 hours @20 °C for K-Acryl IK , 15 days @20 °C for Karden Premium MAXIMUM RECOATING INERVAL 10 hours @20 °C for K-Acryl IK , 15 days @20 °C for Karden Premium MAXIMUM RECOATING INERVAL (IMMERSION) 30 days @20 °C for Karden Epotie and Karden Unimarine, Karden Uniprime PDT LIFE 2 hours @20 °C	RECOMMENDED WET THICKNESS	175 microns
MAXIMUM RECDATING INERVAL 10 hours @20 °C for K-Acryl IK , 15 days @20 °C for Karden Premium MAXIMUM RECDATING INERVAL(IMMERSION) 30 days @20 °C for Karden Epotie and Karden Unimarine, Karden Uniprime PDT LIFE 2 hours @20 °C	DRY FILM THICKNESS	125 microns
MAXIMUM RECOATING INERVAL(IMMERSION) 30 days @20 °C for Karden Epotie and Karden Unimarine, Karden Uniprime POT LIFE 2 hours @20 °C	MINIMUM RECOATING INTER VAL	4 hours @20 °C for K-Acryl IK , 4 hours @20 °C for Karden Eposea, Karden Epotie and Karden Unimarine and Karden Premium
POT LIFE 2 hours @20 °C	MAXIMUM RECOATING INERVAL	10 hours @20 °C for K-Acryl IK , 15 days @20 °C for Karden Premium
	MAXIMUM RECOATING INERVAL(IMMERSION)	30 days @20 °C for Karden Epotie and Karden Unimarine, Karden Uniprime
SHELF LIFE 3 years for Component A and 1 year for Component B from the date of manufacture, as long as stored at proper conditions and unopenned	POT LIFE	2 hours @20 °C
	SHELF LIFE	3 years for Component A and 1 year for Component B from the date of manufacture, as long as stored at proper conditions and unopenned

3. SURFACE PREPARATION & ENVIRONMENTAL CONDITIONS DURING APPLICATION

NEW APPLICATION	Dil and grease should be removed by solvent cleaning according to SSPC-SPI. Steel surfaces should be abrasive blasted to Sa2 ^{1/2} as per ISO 8501- 1:2007) If a suitable temporary protecting primer was applied, loose debris and any type of contamination should be cleaned thoroughly prior to the final application.
REPAIRS	Corroded areas should be blast cleaned to Sa2 ^{1/2} or SSPC SPIO. Existing systems should be dry and free from loose paint, salt, grease and other contaminants prior to the overcoating.
SURFACE SALT LIMITS	35µg/sqm

DATE OF ISSUE : 24.09.2018



KARTALLAR BOYA VE KIMYA SANAYI TICARET LIMITED SIRKETI

Address : Kosklucesme Mahallesi, Yeni Bagdat Caddesi, No:136, 41400- Gebze/ Kocaeli /TURKIYE Tel : +90 262 641 49 67 E-mail : <u>info@kartallarboya.com</u> Website : <u>www.kartallarboya.com</u>



KARDEN UNIPRIME PRODUCT CODE: KBK 020114 MARINE PRIMER



3. SURFACE PREPARATION & ENVIRONMENTAL CONDITIONS DURING APPLICATION (CONTINUED)

ENVIRONMENT CONDITIONS The temperature of the surface should be at least 3°C higher than the DewPoint of the air. Temperature and relative humidity should be measured in the vicinity of the substrate. The maximum recommended surface temperature is 40°C. In extreme cases, it may be necessary to reduce film thickness in order to avoid sagging. When applying the paint in confined spaces, provide adequate ventilation during application and drying. The temperature of the mixed paint should be at least 15°C. Otherwise extra solvent may be needed to obtain a proper application viscosity. Relative humidity must not be over %80

4. PACKING & STORAGE CONDITIONS

PACKING DETAILS	16L Component A + 4L Component B in steel pails
STORAGE CONDITIONS	Storing areas should be dry and well ventilated where the temperature is always between 5-30°C. These areas should be seperated from the
	manufacturing fields to eliminate the risks of fire.

5. ENVIRONMENTAL RESPONSIBILITY, HEALTH & SAFETY

GENERAL RULES	Observe the precautionary notices on the label of the container. A material safety data sheet is available upon request and national or local safety regulations should be followed. This product is intended for use by professional applicators.
HEALTH	Avoid skin- and eye contact by wearing overalls, gloves, goggles, mask, etc. Spillage on the skin should immediately be removed by thorough washing with lukewarm water and soap or a suitable industrial cleaner. Eyes should be flushed with fresh water and medical attention sought immediately. Spraying should be carried out under well-ventilated conditions. Avoid inhalation of solvent vapors and paint mist by wearing an air mask.
SAFETY	This product contains flammable materials and should be kept away from sparks and open flames. Smoking in the area should not be permitted.

6. DISCLAIMER

DISCLAIMER The information in this data sheet is provided to the best of our knowledge. However, we have no control over either quality or condition of the substrate and other factors affecting the use and application of this product. Therefore, we cannot accept any liability whatsoever or howsoever arising from the performance of the product or for any loss or damage arising from the use of this product. We reserve the right to change the product without notice.

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