KARDEN EPOTIE PRODUCT CODE: KBK 02033 MARINE A/F TIE-COAT



I. DESCRIPTION OF PRODUCT AND THE PRODUCER GENERIC TYPE GENERIC TYPE Epoxy tiecoat paint, sealer DESCRIPTION, AREAS OF USE A two pack tiecoat between KBK Marine epoxy primers and KBK Marine antifouling paint ranges. Also suitable to seal old antifouling coats. Develops excellent adhesion of A/F topcoats. Could also be used on different areas of marine vesels as inermediate or topcoat. PRODUCER INFORMATION Kartallar Boya ve Kimya Sanayi Ticaret Limited Sirketi Kosklucesme Mahallesi, Yeni Bagdat Caddesi, No:136, 41400 Gebze / K0CAELI / TURKIYE PRODUCT HOTLINE 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

CDUDUR(S) / TEXTURE Bigg. Cream APPEARANCE Semi Matt (ASTM 0 523) SPECIFIC BRAVITY I.3D±.D.02 g/cm² (ASTM 0 1475) SULD BY VOLUME %46±1 (ASTM 0 2637) THINNER CODE K. Solv 1200 THINNER ATE %5-8 VOC CONTENT 469 g/L (ASTM 0 3960) SPREADING RATE 45-5 sqm per liter when applied as single coat (100 microns DFT) SPREADING RATE 45-5 sqm per liter when applied as single coat (100 microns DFT) SURFACE DRY TIME 1 hour @20 °C THROUGH DRY 5-6 hours @20 °C COMPLETELY CURED 7 days @20 °C HARDERER TYPE - COMP. MIXING RATIO K-Eure (9000, 4-1 on Volume METHOD DF APPLICATION Airless Spray, HUP Spray, lint free roller, brush NOZZE INFD 0.021° - 0.023° RESSURE INFD 200 bars RECOMMENDED WET THICKNESS 225 microns DIQ PUT - D.023° 70 C for Karden Marine Antifouling products MAXIMUM RECOATING INFERVAL 6 hours @20 °C for Karden Marine Antifouling products MINIMUM RECOATING INFERVAL 6 hours @20 °C for Karden Marine Antifouling products MINIMUM RECOATING INFERVAL 6 hours @20 °C for Karden Marine Antifouling products		
SPECIFIC GRAVITY 1.30±0.02 g/cm³ (ASTM D 1475) SOLID BY VOLUME %46±1 (ASTM D 2697) THINNER CODE K · Solv 1200 THINNING RATE %5-8 VOC CONTENT 469 g/L (ASTM D 3960) SPREADING RATE 4.5-5 sqm per liter when applied as single coat (100 microns DFT) SURFACE DRY TIME 1 hour @20 °C THROUGH DRY 5-6 hours @20 °C COMPLETELY CURED 7 days @20 °C HARDENER TYPE - COMP. MIXING RATIO K - Cure 19000, 4:1 on Volume METHOD OF APPLICATION Airless Spray, HVLP Spray, lint free roller, brush NDZZE INFO 200 bars RECOMMENDED WET THICKNESS 225 microns DRY FLUX THICKNESS 200 bars RECOMMENDED WET THICKNESS 200 microns MINIMUM RECOATING INTERVAL Ghours @20 °C for Karden Marine Antifouling products MAXIMUM RECOATING INTERVAL(IMMERSIDN) S days @20 °C	COLOUR(S) / TEXTURE	Biege, Cream
SQLD BY VOLUME %46±1 (ASTM 0 2697) THINNER CODE K. Solv 1200 THINNING RATE %5-8 VOC CONTENT 469 g/L (ASTM 0 3960) SPREADING RATE 4.5-5 sqm per liter when applied as single coat (100 microns DFT) SURFACE DRY TIME I hour @20 °C THROUGH DRY 5-8 hours @20 °C COMPLETELY CURED 7 days @20 °C CHADDER TYPE - COMP. MIXING RATIO K-Cure 19000, 4:1 on Volume METHOD OF APPLICATION Airless Spray, HVLP Spray, lint free roller, brush NOZZLE INFO 0.021" - 0.023" PRESSURE INFO 200 bars RECOMMENDED WET THICKNESS 200 °C for Karden Marine Antifouling products MINIMUM RECOATING INTERVAL B hours @20 °C for Karden Marine Antifouling products MAXIMUM RECOATING INTERVAL S hours @20 °C for Karden Marine Antifouling products	APPEARANCE	Semi Matt (ASTM D 523)
THINNER CODE K-Solv (200 THINNING RATE %5-8 VOC CONTENT 469 g/L (ASTM 0 3960) SPREADING RATE 4.5-5 sqm per liter when applied as single coat (100 microns DFT) SURFACE DRY TIME 1 hour @20 °C THROUGH DRY 5-6 hours @20 °C COMPLETELY CURED 7 days @20 °C HARDENER TYPE - COMP. MIXING RATID K-Cure 19000 , 4:1 on Volume METHOD OF APPLICATION Airless Spray. HVLP Spray. lint free roller, brush NOZZLE INFO 0.021" - 0.023" PRESSURE INFO 200 bars RECOMMENDED WET THICKNESS 225 microns DRY FILM THICKNESS 100 microns MINIMUM RECOATING INTERVAL E hours @20 °C for Karden Marine Antifouling products MAXIMUM RECOATING INERVAL(IMMERSION) 5 days @20 °C POT LIFE 3 hours @20 °C	SPECIFIC GRAVITY	1,30±0,02 g/cm³ (ASTM D 1475)
THINNING RATE %5-8 VOC CONTENT 469 g/L (ASTM D 396D) SPREADING RATE 4.5-5 sqm per liter when applied as single coat (IOD microns DFT) SURFACE DRY TIME 1 hour @20 °C THRDUGH DRY 5-6 hours @20 °C COMPLETELY CURED 7 days @20 °C HARDENER TYPE - COMP. MIXING RATID K-Cure 19000, 4:1 on Volume METHOD OF APPLICATION Airless Spray, HVLP Spray, lint free roller, brush NOZZLE INFO 0.021" - 0.023" PRESSURE INFO 200 bars RECOMMENDED WET THICKNESS 225 microns DRY FILM THICKNESS 100 microns MINIMUM RECOATING INTERVAL B hours @20 °C for Karden Marine Antifouling products MAXIMUM RECOATING INERVAL(IMMERSION) 5 days @20 °C for Karden Marine Antifouling products POT LIFE 3 hours @20 °C	Solid by volume	%46±1 (ASTM D 2697)
VDC CONTENT469 g/L (ASTM D 3960)SPREADING RATE4,5-5 sqm per liter when applied as single coat (100 microns DFT)SURFACE DRY TIME1 hour @20 °CTHROUGH DRY5-6 hours @20 °CCOMPLETELY CURED7 days @20 °CHARDENER TYPE - COMP. MIXING RATIOK-Cure 19000, 4:1 on VolumeMETHOD OF APPULCATIONAirless Spray. HVLP Spray, lint free roller, brushNOZZLE INFO0.021" - 0.023"PRESSURE INFD200 barsRECOMMENDED WET THICKNESS225 micronsDRY FILM THICKNESS100 micronsMINIMUM RECOATING INTERVAL B hours @20 °C for Karden Marine Antifouling productsMAXIMUM RECOATING INTERVAL S days @20 °C for Karden Marine Antifouling productsPOT LIFE 3 hours @20 °C	THINNER CODE	K- Solv 1200
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SURFACE DRY TIME 1 hour @20 °C THROUGH DRY 5-6 hours @20 °C COMPLETELY CURED 7 days @20 °C HARDENER TYPE - COMP. MIXING RATIO K-Cure 19000, 4:1 on Volume METHOD DF APPLICATION Airless Spray, HVLP Spray, lint free roller, brush NOZZLE INFD 0.021" - 0.023" PRESSURE INFD 200 bars RECOMMENDED WET THICKNESS 225 microns DRY FILM THICKNESS 100 microns MINIMUM RECOATING INTERVAL 6 hours @20 °C for Karden Marine Antifouling products MAXIMUM RECOATING INTERVAL 5 days @20 °C for Karden Marine Antifouling products POT LIFE 3 hours @20 °C	VOC CONTENT	469 g/L (ASTM D 3960)
THROUGH DRY 5-6 hours @20 °C COMPLETELY CURED 7 days @20 °C HARDENER TYPE - COMP. MIXING RATID K-Cure 19000, 4:1 on Volume METHOD DF APPLICATION Airless Spray, HVLP Spray, lint free roller, brush NDZZLE INFD 0,021" - 0.023" PRESSURE INFD 200 bars RECOMMENDED WET THICKNESS 225 microns DRY FILM THICKNESS 100 microns MINIMUM RECOATING INTERVAL 6 hours @20 °C for Karden Marine Antifouling products MAXIMUM RECOATING INTERVAL 5 days @20 °C for Karden Marine Antifouling products POT LIFE 3 hours @20 °C	SPREADING RATE	4,5-5 sqm per liter when applied as single coat (100 microns DFT)
COMPLETELY CURED 7 days @20 °C HARDENER TYPE - COMP. MIXING RATIO K-Cure 19000, 4:1 on Volume METHOD OF APPLICATION Airless Spray, HVLP Spray, lint free roller, brush NOZZLE INFO D,021" - 0.023" PRESSURE INFO 200 bars RECOMMENDED WET THICKNESS 225 microns DRY FILM THICKNESS 100 microns MINIMUM RECOATING INTERVAL 6 hours @20 °C for Karden Marine Antifouling products MAXIMUM RECOATING INTERVAL 5 days @20 °C for Karden Marine Antifouling products POT LIFE 3 hours @20 °C	SURFACE DRY TIME	l hour @20 °C
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DRY FILM THICKNESS IOD microns MINIMUM RECOATING INTERVAL 6 hours @20 °C for Karden Marine Antifouling products MAXIMUM RECOATING INTERVAL (IMMERSION) 5 days @20 °C for Karden Marine Antifouling products POT LIFE 3 hours @20 °C	PRESSURE INFO	200 bars
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MAXIMUM RECOATING INERVAL(IMMERSION) 5 days @20 °C for Karden Marine Antifouling products POT LIFE 3 hours @20 °C	DRY FILM THICKNESS	100 microns
POT LIFE 3 hours @20 °C	MINIMUM RECOATING INTER VAL	6 hours @20 °C for Karden Marine Antifouling products
	MAXIMUM RECOATING INERVAL(IMMERSION)	5 days @20 °C for Karden Marine Antifouling products
SHELF LIFE 3 years for Component A and 3 years for Component B from the date of manufacture, as long as stored at proper conditions and unopenned	POT LIFE	3 hours @20 °C
	SHELF LIFE	3 years for Component A and 3 years 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	Not recommended.
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
IMPORTANT NOTICE	Should be used where the ambient temperature is above -10 $^{ m o}{ m C}$

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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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