

Verilen değerler malzeme ve vana tipi seçmenize yardımcı olmayı amaçlamaktadır. Servis ömrü ve performansı birden fazla faktöre bağlı olup verilen değerler herhangi bir garanti içermez. Şüphe duyduğunuz durumlarda lütfen bizimle teknik servis departmanımızla irtibata geçiniz.

GJL250 DIN EN1561 uygun demir döküm  
 0.7040 DIN EN 1563'e uygun sfero döküm  
 1.0619 DIN EN 10213-2'ye uygun çelik döküm  
 1.4408 DIN EN 10213'e uygun paslanmaz çelik

### Sızdırmazlık Malzemesi Sembol Açıklaması

• = uygundur  
 - = uygun değildir

### Metalik Malzeme Sembolü Açıklaması

0 = mükemmel; aşınma 0-2, 4 gr/m<sup>2</sup>/gün  
 1 = mükemmele yakın; aşınma 2, 4-24 gr/m<sup>2</sup>/gün  
 2 = az kullanılır ; aşınma 24-72 gr/m<sup>2</sup>/gün  
 3 = kullanılmaz; aşınma 72 gr/m<sup>2</sup>/günde  
 - = test edilmemiş veya riskli

### Kısaltmalar

Kp= kaynama noktası  
 satd. sol.= sulu eriyik  
 hyd. sol. = doymuş eriyik  
 conc. = konsantre  
 all = hepsi

Akışkan	Kimyasal Formül	Konsantrasyon ve Sıcaklık		Sızdırmazlık Ringi		Metalik Malzeme			Malzeme Kodu
		%	°C	Grafit	Teflon(PTFE)	GJL 250 0.7040	1.0619	1.4408	
Aceton	CH <sub>3</sub> COCH <sub>3</sub>		20	•	•	0	0	0	all
Acetylen	CH <sub>2</sub>			•	•	0	0	0	III, VII, X, Xb
Air, dry				•	•	0	0	0	all
Alum	KAl(SO <sub>4</sub> ) <sub>3</sub>	10	20	•	•	-	-	0	X, Xb
Alum	KAl(SO <sub>4</sub> ) <sub>3</sub>	10	100	•	•	-	-	0	X, Xb
Aluminium acetate	(CH <sub>3</sub> COO) <sub>3</sub> Al			•	•	3	3	0	X, Xb
Aluminium chlorate	Al(ClO <sub>3</sub> ) <sub>3</sub>			•	•	-	-	0	X, Xb
Aluminium ethylate	Al(OCH <sub>2</sub> CH <sub>3</sub> ) <sub>3</sub>			•	•	0	0	0	all
Aluminium fluoride	AlF <sub>3</sub>			•	•	0	0	0	III, VII
Aluminium oxyde	Al <sub>2</sub> O <sub>3</sub>			•	•	0	0	0	all
Ammonium	NH <sub>3</sub>			•	•	0	0	0	VIII, Xb
Ammonium hydroxyde	NH <sub>4</sub> OH	10	20	•	•	0	0	0	III, VIII, X, Xb
Ammonium hydroxyde	NH <sub>4</sub> OH	10	100	•	•	0	0	0	III, VIII, X, Xb
Ammonium bicarbonate	(NH <sub>4</sub> )HCO <sub>3</sub>			•	•	0	0	0	III, VIII, X, Xb
Ammonium carbonate	(NH <sub>4</sub> ) <sub>2</sub> CO <sub>3</sub>		Kp	•	•	2	2	0	X, Xb
Ammonium chloride	NH <sub>4</sub> Cl	5	5	•	•	1	1	0	all
Ammonium chloride	NH <sub>4</sub> Cl	10	10	•	•	1	1	0	all
Ammonium chloride	NH <sub>4</sub> Cl	10	10	•	•	3	3	0	X, Xb
Ammonium chloride	NH <sub>4</sub> Cl	50	50	•	•	1	1	0	all 1)
Ammonium diphosphate	(NH <sub>4</sub> ) <sub>2</sub> HPO <sub>4</sub>			•	•	1	1	0	III, VIII, X, Xb
Ammonium nitrate	NH <sub>4</sub> NO <sub>3</sub>		20	•	•	2	2	0	X, Xb
Ammonium sulphate	(NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>		20	•	•	3	3	0	X, Xb
Aniline	C <sub>6</sub> H <sub>5</sub> NH <sub>2</sub>			•	•	0	0	0	all
Arsenic acid	H <sub>3</sub> AsO <sub>4</sub>			•	•	2	2	0	X, Xb
Asphalt (tar)				•	•	-	-	0	X, Xb
Beer				•	•	3	3	0	X, Xb
Benzene				•	•	0	0	0	all
Benzene	CH <sub>6</sub>			•	•	0	0	0	all
Bleaching liquor (chloride of lime)				•	•	-	-	1	X, Xb
Borax	Na <sub>2</sub> B <sub>4</sub> O <sub>7</sub> · 10 H <sub>2</sub> O			•	•	-	-	-	X, Xb

# Kimyasal Korozyon Tablosu



Akışkan	Kimyasal Formül	Konsantrasyon ve Sıcaklık		Sızdırmazlık Ringi		Metalik Mzeme			Malzeme Kodu
		%	°C	Grafit	Teflon (PTFE)	G.JL 250 0.7040	1.0619	1.4408	
Boric acid	HBO <sub>3</sub>	4	20	•	•	2	2	0	X, Xb
Boric acid	HBO <sub>3</sub>	4	100	•	•	2	2	0	X, Xb
Boric acid	HBO <sub>3</sub>	100	100	•	•	2	2	0	X, Xb
Butane	CH <sub>10</sub>			•	•	0	0	0	all
Buttermilk			20	•	•	-	-	0	X, Xb
Butyl acetate	CH <sub>3</sub> COOCH <sub>2</sub>			•	•	0	0	0	all
Butyl alcohol	CH <sub>2</sub> OH			•	•	0	0	0	all
Calcium bisulphite	Ca(HSO <sub>3</sub> ) <sub>2</sub>		20	-	•	2	3	0	X, Xb
Calcium bisulphite	Ca(HSO <sub>3</sub> ) <sub>2</sub>		200	•	•	2	3	0	X, Xb
Calcium chloride	CaCl <sub>2</sub>	20		•	•	1	1	0	X, Xb
Calcium chloride	CaCl <sub>2</sub>		100	•	•	2	2	1	X, Xb
Calcium hydroxide (milk of lime)	Ca(OH) <sub>2</sub>			•	•	0	0	0	all
Calcium hypochlorite	Ca(ClO) <sub>2</sub>			-	•	2	2	1	X, Xb
Calcium sulphate	CaSO <sub>4</sub>			•	•	0	0	0	all
Carbon dioxide, dry	CO <sub>2</sub>	to	150	•	•	0	0	0	all
Carbon dioxide, dry	CO <sub>2</sub>		400	•	•	0	0	0	VII, X, Xb
Carbon disulphide	CS <sub>2</sub>		20	•	•	0	0	0	III, VIII, Xb
Carbon tetrachloride	CCl <sub>4</sub>			•	•	1	1	0	all
Chlor sulphonic acid	HOSO <sub>2</sub> Cl		Kp	•	•	1	1	3	all
Chloroform	CHCl <sub>3</sub>		20	•	•	0	0	0	all
Chloroform	CHCl <sub>3</sub>			•	•	0	0	0	all
Chromic acid	H <sub>2</sub> CrO <sub>4</sub>	10	20	•	•	1	0	0	III, VIII, Xb
Chromic acid	H <sub>2</sub> CrO <sub>4</sub>	10	Kp	•	•	-	-	0	X, Xb
Chromic acid	H <sub>2</sub> CrO <sub>4</sub>	50	20	•	•	0	0	0	III, VIII, Xb
Citric acid	(CH <sub>2</sub> COOH) <sub>3</sub> Cu		20	•	•	3	3	0	X, Xb
Citric acid	(OH)COOH			•	•	3	3	0	X, Xb
Citric acid	(CH <sub>2</sub> COOH) <sub>3</sub> C		Kp	•	•	3	3	0	X, Xb
Citric acid	(OH)COOH			•	•	3	3	0	X, Xb
Clophen T 64				•	•	0	0	0	all
Copper acetate watsol.	(CH <sub>3</sub> COO) <sub>2</sub> Cu		20	•	•	0	0	0	all
Copper acetate watsol.	(CH <sub>3</sub> COO) <sub>2</sub> Cu		Kp	•	•	2	2	0	X, Xb
Copper sulphate	CuSO <sub>4</sub>		20	•	•	3	2	0	X, Xb
Copper sulphate	CuSO <sub>4</sub>		Kp	•	•	3	2	0	X, Xb
Diazotation bath, (weakly acid)			20	•	•	2	2	1	X, Xb
Diazotation bath, (weakly acid)			80	•	•	2	2	1	X, Xb
Diesel oil			20	•	•	0	0	0	all
Diphyl				•	•	0	0	0	all 3)
Dowtherm A				•	•	0	0	0	all 3)
Dye liquor, alkaline or neutral			20	•	•	-	-	0	X, Xb
Dye liquor, alkaline or neutral			Kp	•	•	-	-	0	X, Xb
Dye liquor, organic as it			20	•	•	-	-	0	X, Xb
Dye liquor, organic as it			Kp	•	•	-	-	0	X, Xb
Dye liquor, strongly sulphuric acid	H <sub>2</sub> SO <sub>4</sub> above 0,3%		20	•	•	-	-	0	X, Xb
Dye liquor, strongly sulphuric acid	H <sub>2</sub> SO <sub>4</sub> above 0,3%		Kp	•	•	-	-	0	X, Xb
Dye liquor, weakly sulphuric acid	H <sub>2</sub> SO <sub>4</sub> above 0,3%		Kp	•	•	-	-	0	X, Xb
Ethane	CH <sub>4</sub>			•	•	0	0	0	all
Ethanol	CH <sub>3</sub> OH			•	•	0	0	0	all
Ethyl acetate	CH <sub>3</sub> COOCH <sub>2</sub>		Kp	•	•	0	0	0	all
Ethyl ether	CH <sub>3</sub> OCH <sub>2</sub>			-	•	1	1	0	all

Akışkan	Kimyasal Formül	Konsantrasyon ve Sıcaklık		Sızdırmazlık Ringi		Metalik Mame			Malzeme Kodu
		%	°C	Grafit	Teflon (PTFE)	G.JL 250 0.7040	1.0619	1.4408	
Ethylene chloride (Dichlorethan)	(CH <sub>2</sub> Cl) <sub>2</sub>	20		•	•	0	0	0	all
Ethylene	CH <sub>2</sub>			-	•	0	0	0	allf)
Fatty acids from C6				•	•	1	1	0	all
Formaldehyde	HCHO	40	20	•	•	3	3	0	X,Xb
Formaldehyde	HCHO	40	Kp	•	•	3	3	0	X,Xb
Formic acid	HCOOH	10	20	•	•	3	3	0	X,Xb
Formic acid	HCOOH	10	100	•	•	3	3	1	X,Xb
Formic acid	HCOOH	100	20	•	•	3	3	0	X,Xb
Formic acid	HCOOH	100	100	•	•	3	3	1	X,Xb
Freon				•	•	0	0	0	all
Glacial acetic acid	CH <sub>3</sub> COOH	10	20	•	•	2	2	0	X,Xb
Glacial acetic acid	CH <sub>3</sub> COOH	10	20	•	•	2	2	0	X,Xb
Glacial acetic acid	CH <sub>3</sub> COOH	50	Kp	•	•	2	2	0	X,Xb
Glacial acetic acid	CH <sub>3</sub> COOH	50	20	•	•	3	2	0	X,Xb
Glacial acetic acid	CH <sub>3</sub> COOH	50	Kp	•	•	3	2	1	X,Xb
Glacial acetic acid	CH <sub>3</sub> COOH	80	20	•	•	3	2	1	X,Xb
Glacial acetic acid	CH <sub>3</sub> COOH	80	Kp	•	•	3	2	1	X,Xb
Glycerine	(CH <sub>2</sub> OH) <sub>2</sub> CHOH		20	•	•	2	2	0	X,Xb
Glycerine	(CH <sub>2</sub> OH) <sub>2</sub> CHOH		100	•	•	2	2	0	X,Xb
Grape vinegar			20	•	•	-	-	0	X,Xb
Heat transfer oils				•	•	0	0	0	all <sup>3)</sup>
Hydrochloric acid	HCl	0,2	20	•	•	3	3	0	X,Xb
Hydrochloric acid	HCl	0,2	50	•	•	3	3	1	X,Xb
Hydrochloric acid	HCl	1	20	•	•	3	3	1	X,Xb
Hydrochloric acid, dry	HCl		20	•	•	1	1	1	all
Hydrochloric acid, dry	HCl		100	•	•	1	1	2	all
Hydrojen	H <sub>2</sub>			•	•	0	0	0	all <sup>4)</sup>
Hydrojen peroxide	H <sub>2</sub> O <sub>2</sub>		20	•	•	3	3	0	X,Xb
Hydrojen peroxide	H <sub>2</sub> O <sub>2</sub>		50	-	•	3	3	0	X,Xb
Hydrojen sulphide, gas, dry	H <sub>2</sub> S		20	•	•	-	-	0	X,Xb
Hydrojen sulphide, gas, wet	H <sub>2</sub> S		20	•	•	-	-	0	X,Xc1)
Hydroxylamine sulphate	(NH <sub>2</sub> OH)H <sub>2</sub> SO <sub>4</sub>	10	20	-	•	-	-	0	X,Xb
Hydroxylamine sulphate	(NH <sub>2</sub> OH)H <sub>2</sub> SO <sub>4</sub>	10	Kp	-	•	-	-	0	X,Xb
Illuminating gas				•	•	0	0	0	all
Kreosote			20	•	•	-	-	0	X,Xb
Kreosote			Kp	•	•	-	-	0	X,Xb
Lead acetate (lead sugar)	Pb(CH <sub>3</sub> COO) <sub>2</sub>	100	Kp	•	•	3	3	2	X,Xb
Lead arsenate	Pb(AsO <sub>3</sub> ) <sub>2</sub>			•	•	-	-	0	X,Xb
Linseed oil			20	•	•	-	-	0	X,Xb
Linseed oil			100	•	•	-	-	0	X,Xb
M.E.K (Butanone)	CH <sub>3</sub> COCH <sub>3</sub>		Kp	•	•	1	1	0	
Manganouschloride	MnCl <sub>2</sub>		20	•	•	2	2	0	X,Xb
Manganouschloride	MnCl <sub>2</sub>		Kp	•	•	2	2	0	X,Xb
Magnesium sulphate	MgSO <sub>4</sub>		20	•	•	1	1	0	all
Magnesium sulphate	MgSO <sub>4</sub>		Kp	•	•	1	1	0	all
Mercury	Hg		20	•	•	1	1	0	III, VIII, X,Xb
Mercury (II) chloride	HgCl <sub>2</sub>		20	•	•	3	3	0	X,Xb
Mercury (II) nitrate	Hg(NO <sub>3</sub> ) <sub>2</sub>		20	•	•	3	3	0	X,Xb
Methyl alcoho	CH <sub>3</sub> OH		20	•	•	0 <sup>2)</sup>	0 <sup>2)</sup>	0	all
Methyl alcoho	CH <sub>3</sub> OH		Kp	•	•	0 <sup>2)</sup>	0 <sup>2)</sup>	0	all
Methylene chloride	CH <sub>2</sub> Cl <sub>2</sub>		20	•	•	1	1	0	Xb
Methylene chloride	CH <sub>2</sub> Cl <sub>2</sub>		Kp	•	•	1	1	0	Xb
Milk				•	•	2	2	0	X,Xb

# Kimyasal Korozyon Tablosu



Akışkan	Kimyasal Formülü	Konsantrasyon ve Sıcaklık		Sızdırmazlık Ringi		Metalik Malzeme			Malzeme Kod
		%	°C	Grafit	Teflon(PTFE)	GJL 250 0.7040	1.0619	1.4408	
Milk of lime	Ca(OH) <sub>2</sub>		20	•	•	0	0	0	all
Milk of lime	Ca(OH) <sub>2</sub>		Kp	•	•	0	0	0	all
Natrium acetate	CH <sub>3</sub> COONa	20	20	•	•	1	1	0	all
Natural gas				•	•	1	0	0	all
Nitric acid	HNO <sub>3</sub>	10	20	•	•	3	3	0	X,Xb
Nitric acid	HNO <sub>3</sub>	10	Kp	•	•	3	3	0	X,Xb
Nitric acid	HNO <sub>3</sub>	40	20	•	•	3	3	0	X,Xb
Nitric acid	HNO <sub>3</sub>	40	Kp	•	•	3	3	0	X,Xb
Nitric acid	HNO <sub>3</sub>	konz.	20	-	•	3	3	0	X,Xb
Nitric acid	HNO <sub>3</sub>	konz.	Kp	-	•	3	2	1	X,Xb
Nitrogen	N <sub>2</sub>			•	•	0	0	0	all
Oils (lubricating oils, mineral)			20	•	•	0	0	0	all
Oils (vegetable)			20	•	•	0	0	0	all
Oleic acid	C <sub>17</sub> H <sub>33</sub> COOH			-	•	0	0	0	all
Oxalic acid	COOHCOOH			-	•	2	2	0	X,Xb
Oxygen	O <sub>2</sub>		20	•	•	0	0	0	all
Penthyl acetate	CH <sub>3</sub> COOC <sub>5</sub> H <sub>11</sub>			•	•	0	0	0	all
Petroleum ether				•	•	0	0	0	all
Phenol	C <sub>6</sub> H <sub>5</sub> OH			•	•	2	2	0	X,Xb
Phosphoric acid	H <sub>3</sub> PO <sub>4</sub>	10	20	•	•	2	2	0	X,Xb
Phosphoric acid	H <sub>3</sub> PO <sub>4</sub>	10	50	•	•	3	3	0	X,Xb
Phosphoric acid	H <sub>3</sub> PO <sub>4</sub>	50	20	•	•	2	2	0	X,Xb
Phosphoric acid	H <sub>3</sub> PO <sub>4</sub>	50		•	•	3	3	1	X,Xb
Phosphoric acid	H <sub>3</sub> PO <sub>4</sub>	80		•	•	3	3	0	X,Xb
Phosphoric acid	H <sub>3</sub> PO <sub>4</sub>	80		•	•	3	3	2	X,Xb
Potassium acetate	CH <sub>3</sub> COOK	50	Kp	•	•	0	0	0	all
Potassium carbonate	K <sub>2</sub> CO <sub>3</sub>		20	•	•	1	0	0	all
Potassium carbonate (potash)	K <sub>2</sub> CO <sub>3</sub>		Kp	•	•	1	0	0	all
Potassium chlorate	KClO <sub>3</sub>		Kp	-	•	2	2	0	X,Xb
(at 100° , sat. sol)									
Potassium chromium sulphate	KCr(SO <sub>4</sub> ) <sub>2</sub> 12H <sub>2</sub> O		20	•	•	-	-	0	X,Xb
Potassium chromium sulphate(chromic alum)	KCr(SO <sub>4</sub> ) <sub>2</sub> 12H <sub>2</sub> O	25	Kp	•	•	-	-	3	
Potassium cyanide solution	KCN	5	20	•5)	•	1	1	1	III, VIII, X,Xb
Potassium dichromate	K <sub>2</sub> Cr <sub>2</sub> O <sub>7</sub>		20	•	•	0	0	0	all
Potassium dichromate	K <sub>2</sub> Cr <sub>2</sub> O <sub>7</sub>		Kp	-	•	2	2	0	X,Xb
Potassium hydrochlorite	KOCl		20	•	•	2	2	1	X,Xb
Potassium hydrochlorite up to 20 g akt. Cl2/l	KOCl		40	•	•	2	2	1	X,Xb
Potassium hydrogenartrate	COOH(CHOH) <sub>2</sub>		20	•	•	-	-	0	X,Xb
	COOK								
Potassium hydrogenartrate (at 100° , sat.sol)	COOH(CHOH) <sub>2</sub>		Kp	•	•	-	-	1	X,Xb
	COOK								
Potassium hydroxyde	KOH	25	20	•	•	0	0	0	all
Potassium hydroxyde	KOH	25	Kp	•	•	-	-	0	X,Xb
Potassium hydroxyde	KOH	50	20	•	•	0	0	0	all
Potassium hydroxyde	KOH		Kp	•	•	3	3	0	X,Xb
Potassium iodide	KJ	50	Kp	•	•	2	2	0	Xb
Potassium iodide	KJ			•	•	1	1	0	III, VIII, X,Xb
Potassium nitrate	KNO <sub>3</sub>		20	-	•	0	0	0	all
Potassium nitrate	KNO <sub>3</sub>		Kp	-	•	2	2	0	X,Xb
Potassium permanganate	KMnO <sub>4</sub>		20	•	•	0	0	0	all
Potassium permanganate	KMnO <sub>4</sub>		Kp	-	•	3	3	0	X,Xb
Propane	C <sub>3</sub> H <sub>8</sub>		20	•	•	0	0	0	all

Akışkan	Kimyasal Formül	Konsantrasyon ve Sıcaklık		Sızdırmazlık Ringi		Metalik Malzeme			Malzeme Kodu
		%	°C	Grafit	Teflon(PTFE)	G-JL 250 0.7040	1.0619	1.4408	
Salicylic	$C_6H_4OHCOOH$		20	•	•	2	2	0	X, Xb
Salpeter				•	•	0	0	0	all
Sea water			20	•	•	3	3	0	X, Xb
Sea water			Kp	•	•	3	3	0	X, Xb
Silicone oil				•	•	0	0	0	all
Soap				•	•	0	0	0	all
Sodium carbonate	$Na_2CO_3$		20	•	•	0	0	0	all
Sodium carbonate	$Na_2CO_3$		Kp	•	•	1	1	1	all
Sodium hydroxide	$NaOH$			•	•	0	0	0	all
Sodium hydroxide	$NaOH$	20	Kp	•	•	-	-	0	X, Xb
Sodium hydroxide	$NaOH$	35	20	•	•	0	0	0	all
Sodium hydroxide	$NaOH$	35	Kp	•	•	3	3	3	X, Xb
Sodium sulphate	$Na_2SO_4$			•	•	0	0	0	all
Sole	$NaCl$		20	•	•	3	3	1	X, Xb
Spinbath (up to% H2SO4)			80	•	•	3	3	0	X, Xb
Starch solution				•	•	2	2	0	X, Xb
Steam (water vapour)				•	•5)	0	0	0	all
Stearic acid	$C_{17}H_{35}COOH$			•	•	2	2	0	X, Xb
Sugar			20	•	•	1	1	0	all
Sugar			80	•	•	1	1	0	all
Sulphite lye (fresh cooking liquoor, spend liquoor)	$Ca(HSO_3)_2$		20	•	•	-	-	0	X, Xb
Sulphite lye (fresh cooking liquoor, spend liquoor)	$Ca(HSO_3)_2$		80	•	•	-	-	0	X, Xb
Sulphuric acid	$H_2SO_4$	1	20	•	•	3	3	0	X, Xb
Sulphuric acid	$H_2SO_4$	10	20	•	•	3	3	0	X, Xb
Sulphuric acid	$H_2SO_4$	90	20	•	•	1	1	0	1)
Sulphuric acid	$H_2SO_4$	konz.	20	•	•	0	0	0	all1)
Sulphur dioxide	$SO_2$			•	•	3	3	0	X, Xb
Sulphurous acid (cold) sat. sol.	$H_2SO_3$			•	•	3	3	0	X, Xb
Tannic acid	$C_{76}H_{52}O_{46}$	10	20	•	•	2	2	0	X, Xb
Tannic acid	$C_{76}H_{52}O_{46}$	10	Kp	•	•	3	3	0	X, Xb
Tannic acid	$C_{76}H_{52}O_{46}$	50	20	•	•	2	2	0	X, Xb
Tar (neutral)	$(CHOHCOOH)_2$		180	•	•	1	1	0	III, VII, X, Xb
Tartaric acid	$C_6H_5CH_3$		20	•	•	2	2	0	X, Xb
Toluol	$C_2HCl_3$		20	•	•	0	0	0	all
Trichlorethylene	$(NH_2)_2CO$			•	•	1	1	0	all
Turpentine oil			20	•	•	0	0	0	all
Urea			20	•	•	1	1	0	all
Water (fresh-a. drinking water)	$H_2O$			•	•	0	0	0	all
Water glass (K- and Na-silicate)	$K_2SiO_3Na_2HCL$			•	•	0	0	0	all
Xylene	$C_6H_4(CH_3)_2$		20	•	•	0	0	0	all