

Disk Diffusion Zone Diameter Chart

(selected data adapted from https://catalog.hardydiagnostics.com/cp_prod/Content/hugo/HardyDiskASTProceduresandChart.pdf)

Antimicrobial Agent	Disk Code	Zone Diameter Interpretative Standards (mm)			Standard Control Strain Response (mm)	
					<i>E. coli</i> (ATCC 25922)	<i>S. aureus</i> (ATCC 25923)
Ampicillin	AM-10	Resistant	Intermediate	Susceptible	16-22	27-35
For Enterobacteriaceae		≤ 13	14-16	≥ 17		
For <i>Staphylococcus</i> species		≤ 28		≥ 29		
For <i>Enterococcus</i> species		≤ 16		≥ 17		
Bacitracin	B-10	Resistant	Intermediate	Susceptible	---	12-22
All bacteria		≤ 8	9-12	≥ 13		
Cefotaxime	CTX-10	Resistant	Intermediate	Susceptible	29-35	25-31
For Enterobacteriaceae		≤ 22	23-25	≥ 26		
For <i>Staphylococcus</i> species		≤ 14	15-22	≥ 23		
For beta-hemolytic streptococci				≥ 24		
For viridans streptococci		≤ 25	26-27	≥ 28		
Cefoxitin	FOX-30	Resistant	Intermediate	Susceptible	23-29	23-29
For Enterobacteriaceae		≤ 14	15-17	≥ 18		
For <i>Staphylococcus aureus</i>		≤ 21		≥ 22		
For staphylococci (not <i>S. aureus</i>)		≤ 24		≥ 25		



Antimicrobial Agent	Disk Code	Zone Diameter Interpretative Standards (mm)			Standard Control Strain Response (mm)	
					<i>E. coli</i> (ATCC 25922)	<i>S. aureus</i> (ATCC 25923)
Chloramphenicol	C-30	Resistant	Intermediate	Susceptible	21-27	19-26
For Enterobacteriaceae		≤ 12	13-17	≥ 18		
For <i>Staphylococcus</i> species		≤ 12	13-17	≥ 18		
For <i>Enterococcus</i> species		≤ 12	13-17	≥ 18		
For streptococci (not <i>S. pneumoniae</i>)		≤ 17	18-20	≥ 21		
For <i>Streptococcus pneumoniae</i>		≤ 20		≥ 21		
Ciprofloxacin	CIP-5	Resistant	Intermediate	Susceptible	30-40	22-30
For Enterobacteriaceae		≤ 15	16-20	≥ 21		
For <i>Staphylococcus</i> species		≤ 15	16-20	≥ 21		
For <i>Enterococcus</i> species		≤ 15	16-20	≥ 21		
Clindamycin	CC-2	Resistant	Intermediate	Susceptible	---	24-30
For <i>Streptococcus</i> species		≤ 15	16-18	≥ 19		
For <i>Staphylococcus</i> species		≤ 14	15-20	≥ 21		
Doxycycline	D-30	Resistant	Intermediate	Susceptible	18-24	23-29
For Enterobacteriaceae		≤ 10	11-13	≥ 14		
For <i>Staphylococcus</i> species		≤ 12	13-15	≥ 16		
For <i>Enterococcus</i> species		≤ 12	13-15	≥ 16		



Disk Diffusion Zone Diameter Chart, Page 3 of 5

Antimicrobial Agent	Disk Code	Zone Diameter Interpretative Standards (mm)			Standard Control Strain Response (mm)	
					<i>E. coli</i> (ATCC 25922)	<i>S. aureus</i> (ATCC 25923)
Erythromycin	E-15	Resistant	Intermediate	Susceptible	---	22-20
For <i>Staphylococcus</i> species		≤ 13	14-22	≥ 23		
For <i>Enterococcus</i> species		≤ 13	14-22	≥ 23		
For <i>Streptococcus</i> species		≤ 15	16-20	≥ 21		
Gentamicin	GM-10	Resistant	Intermediate	Susceptible	19-26	19-27
For Enterobacteriaceae		≤ 12	13-14	≥ 15		
For <i>Staphylococcus</i> species		≤ 12	13-14	≥ 15		
Kanamycin	K-30	Resistant	Intermediate	Susceptible	17-25	19-26
For Enterobacteriaceae		≤ 13	14-17	≥ 18		
For <i>Staphylococcus</i> species		≤ 13	14-17	≥ 18		
Naladixic Acid	NA-30	Resistant	Intermediate	Susceptible	22-28	---
For Enterobacteriaceae		≤ 13	14-18	≥ 19		
Neomycin	N-30	Resistant	Intermediate	Susceptible	17-23	18-26
All bacteria		≤ 12	13-16	≥ 17		



Disk Diffusion Zone Diameter Chart, Page 4 of 5

Antimicrobial Agent	Disk Code	Zone Diameter Interpretative Standards (mm)			Standard Control Strain Response (mm)	
					<i>E. coli</i> (ATCC 25922)	<i>S. aureus</i> (ATCC 25923)
Norfloxacin	NOR-10	Resistant	Intermediate	Susceptible	28-35	17-28
For Enterobacteriaceae		≤ 12	13-16	≥ 17		
For <i>Staphylococcus</i> species		≤ 12	13-16	≥ 17		
For <i>Enterococcus</i> species		≤ 12	13-16	≥ 17		
Novobiocin	NB-30	Resistant	Intermediate	Susceptible	---	22-31
All bacteria		≤ 17	18-21	≥ 22		
Oxacillin	OX-1	Resistant	Intermediate	Susceptible	---	18-24
For <i>Staphylococcus aureus</i>		≤ 10	11-12	≥ 13		
Penicillin	P-10	Resistant	Intermediate	Susceptible	---	26-37
For <i>Staphylococcus</i> species		≤ 28		≥ 29		
For beta-hemolytic streptococci				≥ 24		
For <i>Enterococcus</i> species		≤ 14		≥ 15		
Rifampin	RA-5	Resistant	Intermediate	Susceptible	8-10	26-34
For <i>Streptococcus pneumoniae</i>		≤ 16	17-18	≥ 19		
For <i>Staphylococcus</i> species		≤ 16	17-19	≥ 20		
For <i>Enterococcus</i> species		≤ 16	17-19	≥ 20		



Disk Diffusion Zone Diameter Chart, Page 5 of 5

Antimicrobial Agent	Disk Code	Zone Diameter Interpretative Standards (mm)			Standard Control Strain Response (mm)	
					<i>E. coli</i> (ATCC 25922)	<i>S. aureus</i> (ATCC 25923)
Streptomycin	S-10	Resistant	Intermediate	Susceptible	12-20	14-22
For Enterobacteriaceae		≤ 11	12-14	≥ 15		
Tetracycline	Te-30	Resistant	Intermediate	Susceptible	18-25	24-30
For streptococci		≤ 18	19-22	≥ 23		
For Enterobacteriaceae		≤ 11	12-14	≥ 15		
For <i>Staphylococcus</i> species		≤ 14	15-18	≥ 19		
For <i>Enterococcus</i> species		≤ 14	15-18	≥ 19		
Tobramycin	NN-10	Resistant	Intermediate	Susceptible	18-26	19-29
For Enterobacteriaceae		≤ 12	13-14	≥ 15		
For <i>Staphylococcus</i> species		≤ 12	13-14	≥ 15		
Trimethoprim/Sulfamethoxazole	SXT	Resistant	Intermediate	Susceptible	23-29	24-32
For Enterobacteriaceae		≤ 10	11-15	≥ 16		
For <i>Staphylococcus</i> species		≤ 10	11-15	≥ 16		
For <i>Streptococcus pneumoniae</i>		≤ 15	16-18	≥ 19		
Vancomycin	Va-30	Resistant	Intermediate	Susceptible	---	17-21
For <i>Enterococcus</i> species		≤ 14	15-16	≥ 17		
For <i>Streptococcus</i> species				≥ 17		

