

Technical data sheet

Title	Washer for constructions made of wood
Standard	DIN440

1.- Functions of washers.

The main functions of washers are:

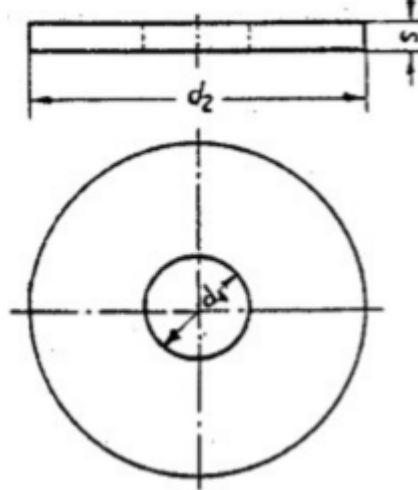
- 1.- To protect contact surfaces against scratches or wear that may be caused by screws or nuts by rubbing.
- 2.- To distribute the tightening force evenly to obtain local pressures that are close to the average pressure.
- 3.- To move the tightening force to different areas of the head of the screw or nut. Oversized or torn holes.
- 4.- To reduce the risks of loosening due to increase in the friction coefficient on the screw or nut (serrated or ribbed washers)
- 5.- To secure a possible loss of tightening torque due to deformation of the parts (elastic washers)
- 6.- To compensate for the lack of parallelism of the parts or uneven surfaces.
- 7.- Watertightness between the head or screw or nut and the part to be tightened (polyamide coated washer).
- 8.- Fastening of cables to the electrical connections.

2- Application and classes of washers

Wide wing washers, with a round inside hole (type R) DIN440 are class C. These washers are designed to be used in screw and nut assemblies in constructions made of wood.

The type of steel used in manufacture will be at the manufacturer's discretion. The hardness of the washer will be 100HV to 250HV. The finish of these washers will be Plain and Zinc plated.

3.- Dimensions of washers



METRIC	d1	d2	s
M5	5.5	18	2
M6	6.6	22	2
M8	9	28	3
M10	11	34	3
M12	14	45	4
M16	18	58	5
M20	22	68	5
M22	24	80	6
M24	26	92	6
M27	30	98	6
M30	33	105	6
M33	36	112	6
M36	39	125	8
M39	42	140	8
M42	45	150	8
M45	48	160	8
M48	52	170	10
M52	56	180	10