

# A2 (304) Stainless Steel EPDM Sealing Washers

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A2 Stainless Steel EPDM Sealing Washers are supplied to ISO 3506 group A2 (304 / 1.4301), commonly supplied A2-70. Corrosion behaviour is good general corrosion resistance, the material is largely non-magnetic, and the usable service range is approx. -200 °C to +400 °C, subject to the property class and the joint. In practice this grade is the most common stainless group for indoor and general outdoor fasteners.

## Grade

ISO 3506 group A2 (304 / 1.4301), commonly supplied A2-70

## Corrosion resistance

Good general corrosion resistance

## Magnetic response

Largely non-magnetic

## Service temperature

approx. -200 °C to +400 °C, subject to the property class and the joint

Property values are typical for the grade. Certified mechanical test data is available on request for production orders.



EPDM Sealing Washers manufactured in A2 Stainless Steel (ISO 3506 group A2 (304 / 1.4301), commonly supplied A2-70) are dimensioned to Industry standard. The sections below give the mechanical and physical properties of the grade, its behavior in corrosive and elevated-temperature service, and the full size table.

## Why Choose A2 Stainless Steel for EPDM Sealing Washers

The most common stainless group for indoor and general outdoor fasteners. For epdm sealing washers, this matters when good general corrosion resistance is the primary requirement.

## Mechanical & Physical Properties

|                                 |                                                                         |
|---------------------------------|-------------------------------------------------------------------------|
| <b>Grade designation</b>        | ISO 3506 group A2 (304 / 1.4301), commonly supplied A2-70               |
| <b>Magnetic response</b>        | Largely non-magnetic                                                    |
| <b>Service temperature</b>      | approx. -200 °C to +400 °C, subject to the property class and the joint |
| <b>Corrosion characteristic</b> | Good general corrosion resistance                                       |

## Corrosion Behavior in Service

A2 (304) gives excellent atmospheric and most-water corrosion resistance and is the most common stainless for EPDM Sealing Washers in indoor and general outdoor service. In chloride-bearing environments (marine air, road salt, swimming pools) consider stepping up to A4 (316).

## Comparable Grades

For EPDM Sealing Washers, the alternative stainless grade is A4 (316). A2 (304) suits general indoor and outdoor service; A4 (316) adds molybdenum for marine and chloride environments. Where higher strength matters more than corrosion, switch to plated alloy-steel class 8.8 or 10.9.

## Using Stainless Fasteners in Aluminum

Stainless steel is more noble than aluminum, so in the presence of an electrolyte — rain, condensation, salt spray — the aluminum becomes the anode and corrodes at the joint. The effect is driven by the area ratio: a small stainless fastener in a large aluminum section is normally acceptable, while a large stainless fastener in thin aluminum is not. Where the joint is wet, isolate the two metals with a coated or nylon washer and a sealant, or specify an aluminum or coated fastener instead.

## Sizes of EPDM Sealing Washers Available in A2 Stainless Steel

| Screw size     | Inner diameter d1 (mm) | Outer diameter d2 (mm) | Total thickness s (mm) | EPDM thickness (mm) | Backing material | Temperature range (deg C) | Reference standard |
|----------------|------------------------|------------------------|------------------------|---------------------|------------------|---------------------------|--------------------|
| No.8 (4.2 mm)  | 4.3                    | 11                     | 2.0                    | 1.0                 | Galvanised steel | -40 to +130               | Industry standard  |
| No.10 (4.8 mm) | 5.0                    | 14                     | 2.0                    | 1.0                 | Galvanised steel | -40 to +130               | Industry standard  |
| No.12 (5.5 mm) | 5.6                    | 16                     | 2.5                    | 1.5                 | Galvanised steel | -40 to +130               | Industry standard  |
| No.14 (6.3 mm) | 6.4                    | 19                     | 2.5                    | 1.5                 | Galvanised steel | -40 to +130               | Industry standard  |
| M6             | 6.4                    | 19                     | 2.5                    | 1.5                 | A2 stainless     | -40 to +130               | Industry standard  |
| M8             | 8.4                    | 22                     | 3.0                    | 2.0                 | A2 stainless     | -40 to +130               | Industry standard  |
| M10            | 10.5                   | 25                     | 3.0                    | 2.0                 | A2 stainless     | -40 to +130               | Industry standard  |

## Technical Drawing

Customize the parameters below — every spec field is editable, and the drawing redraws to match the values you choose.

Changing the size will snap the other fields to that size's standard values; you can then override any individual value.

Sends the selected values to the quote form below.

## Request a Quote

The form below follows the current technical drawing configuration. Change the drawing values above and the request details update automatically.

## Dimensions & Specifications (Industry standard)

| Screw size     | Inner diameter d1 (mm) | Outer diameter d2 (mm) | Total thickness s (mm) | EPDM thickness (mm) | Backing material | Temperature range (deg C) | Reference standard |
|----------------|------------------------|------------------------|------------------------|---------------------|------------------|---------------------------|--------------------|
| No.8 (4.2 mm)  | 4.3                    | 11                     | 2.0                    | 1.0                 | Galvanised steel | -40 to +130               | Industry standard  |
| No.10 (4.8 mm) | 5.0                    | 14                     | 2.0                    | 1.0                 | Galvanised steel | -40 to +130               | Industry standard  |
| No.12 (5.5 mm) | 5.6                    | 16                     | 2.5                    | 1.5                 | Galvanised steel | -40 to +130               | Industry standard  |
| No.14 (6.3 mm) | 6.4                    | 19                     | 2.5                    | 1.5                 | Galvanised steel | -40 to +130               | Industry standard  |
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## Video: A2 (304) Stainless Steel EPDM Sealing Washers



► Watch video: [https://www.youtube.com/watch?v=en\\_Q1Ek3boA](https://www.youtube.com/watch?v=en_Q1Ek3boA)

### ART. 9171 - Wood screws

Third-party video, selected automatically for this topic. It is not produced by Engineering Hardware and is not a specification source — use the tables on this page for dimensional data.

Inside the plant

## Manufactured in our own plant

This part is cold-formed, threaded, heat-treated and finished in-house. The stages below are where its class and finish are actually decided.

1.



01

### **Cold heading**

Wire rod is drawn to size and cold-formed into blanks. Forming rather than cutting keeps the grain flow continuous around the head, which is where a bolt is most likely to fail.

Head dimensions and under-head radius checked at set-up and per shift.





2.

02

## Thread rolling

Threads are rolled between hardened dies rather than cut. Rolled threads are stronger in fatigue than cut threads and hold pitch and flank angle far more consistently across a batch.

Go / no-go ring gauges to ISO 965 tolerance class 6g.



3.



03

### Heat treatment

Quench-and-temper brings carbon and alloy steel to the property class ordered — 8.8, 10.9 or 12.9 — with the furnace charge tracked so a finished lot can be traced back to it.

Core hardness and tensile tested per lot to ISO 898-1.



4.

04

## Surface treatment

Zinc, zinc-nickel, hot-dip galvanizing, black oxide, phosphate and Dacromet, selected against the service environment rather than against the price list.

Coating thickness and neutral salt spray hours to ISO 9227.

## Frequently Asked Questions

Can A2 Stainless Steel replace plated alloy steel structurally?

Only at the standard strength classes — A2-70 / A4-80 are roughly equivalent to class 7 steel; A4-100 reaches class 8.8. For class 10.9 or 12.9 strength, plated alloy steel is required.

Are A2 Stainless Steel EPDM Sealing Washers magnetic?

A2 Stainless Steel EPDM Sealing Washers are largely non-magnetic.

What corrosion resistance do A2 Stainless Steel EPDM Sealing Washers offer?

A2 Stainless Steel EPDM Sealing Washers provide good general corrosion resistance with a service range of approx. -200 °C to +400 °C, subject to the property class and the joint.

Should I choose A2 Stainless Steel or A4 (316) for EPDM Sealing Washers?

For EPDM Sealing Washers, A2 Stainless Steel suits general indoor and outdoor use; A4 (316) is preferred for marine, coastal and chemical environments. Choose by corrosion exposure first.

How do I request a quotation?

Use the technical drawing on this page to pick the exact configuration, then submit it with the quote form. We respond within one business day.

## Related Pages

[View the full EPDM Sealing Washers page](#)

### More EPDM Sealing Washers Guides

- [A4 Stainless Steel EPDM Sealing Washers](#)