

FEATURE FACTS

QUICK GUIDE TO LENS MARKINGS

How can I tell if my eyewear has been tested and complies with the ANSI standard?

The numbers and markings inside your eyewear indicate specific safety ratings. You can find this denoted typically on the inside of the side arm of your glasses, or on the bottom of your glasses.

But how to read your specific glasses?

Are my goggles liquid splash resistant? What do all those numbers and letters mean?

Some of our Goggles, like our ScanTox are liquid splash resistant.

There are 3 different levels of liquid splash:

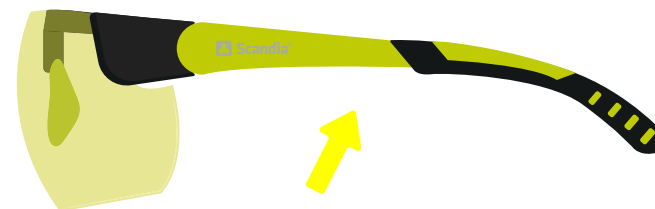
- D3:** Liquid Splash Resistant
- D4:** Resistant to Dust
- D5:** Resistant to Fine Dust (typically non-vented)

Here is a quick guide with most common features for your reference;

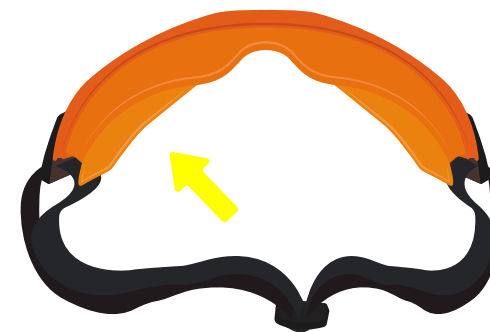
- 2C:** UV Protection with good color recognition
- 1,2:** more than 74,4% light transmission, but less than 100%
- 1:** Optical Class 1 (Refractive Power of 0.06 diopter or less)
- F:** Impact Rated 45.7 m/s
- T:** Protection against high-speed particles heated to extreme temperatures.
- K:** Hard Coat - Anti-Scratch
- N:** Non-Mist
- CE:** Conformity Marking



Markings found on the right bottom of the lens
Example:
2C-1.2 SCANDIA 1 FT K N CE



Markings found on the inside of the arm
Example: S Z87+ EN 166 FT CE



Bottom view:
Markings for goggles are found on the bottom

Visit www.scandiagear.com for more information

Protective devices do not provide unlimited protection. Some operations may require machine guards, face shields, special filter lenses, or other safety equipment. Safety eyewear does not provide complete protection against hazards, and should only be used in conjunction with the prescribed safety equipment for the application as well as defined safety practises.



STANDARD CE EN166

Optical class

CLASS 1	CONTINUOUS WORK: SUITABLE FOR OCCASIONAL WEAR (REFRACTIVE POWER OF ± 0.06 DIOPTRIS)
CLASS 2	INTERMITTENT WORK: SUITABLE FOR OCCASIONAL WEAR (REFRACTIVE POWER OF ± 0.12 DIOPTRIS)
CLASS 3	OCCASIONAL WORK: SUITABLE FOR EXCEPTIONAL WEAR (REFRACTIVE POWER OF ± 0.25 DIOPTRIS)

Field of use

3	LIQUIDS DROPLETS (GOGGLES) OR LIQUID SPLASHES (FACE SHIELDS, BUT NOT THOSE MADE OF MESH)
4	LARGE DUST PARTICLES (I.E., PARTICLES SIZE $>5\mu\text{M}$)
5	GASES AND FINE DUST PARTICLES (E.G., PARTICLE SIZE $<5\mu\text{M}$)
8	PROTECTION AGAINST SHORT CIRCUIT/ELECTRIC ARC
9	MOLTEN METAL AND HOT SOLIDS

Optional requirement

K	HARD COAT: RESISTANCE TO SURFACE DAMAGE BY FINE PARTICLES (OPTIONAL); ANTI-SCRATCH PROTECTION
N	NON-MIST: RESISTANCE TO MISTING/FOGGING (OPTIONAL)
R	ENHANCED REFLECTANCE (OPTIONAL)
G	RADIANT HEAT: MESH-TYPE PROTECTION ONLY
H	EYE PROTECTOR DESIGNED TO FIT SMALL-SIZED HEADS/FACES

Mechanical strength

NONE	WITHOUT MECHANICAL STRENGTH (I.E., FILTERS ONLY)
S	EXTRA STRONG: RESISTS A 22 MM, 43 G BALL FALLING 1.30 M AT 5.1 M/S (OCULARS ONLY)
F	LOW ENERGY IMPACT: RESISTS A 6 MM, 0.86 G BALL FALLING 1.30 M AT 45 M/S (ANY TYPE)
B	MEDIUM ENERGY IMPACT: RESISTS A 6 MM, 0.86 G BALL FALLING 1.30 M AT 120 M/S (GOGGLES AND FACE SHIELDS ONLY)
A	HIGH-ENERGY IMPACT: RESISTS A 6 MM, 0.86 G BALL FALLING 1.30 M AT 190 M/S (FACE SHIELDS ONLY)
T	PROTECTION AGAINST HIGH-SPEED PARTICLES HEATED TO EXTREME TEMPERATURES IF WRITTEN FOLLOWING A MECHANICAL STRENGTH SYMBOL (E.G., F, B OR A)

STANDARD CE EN170 & EN172

Lens protection

2	UV PROTECTION (EN 170): "2" INDICATES THAT THE FILTER MAY AFFECT COLOUR RECOGNITION
2C OR 3	UV PROTECTION (EN 170): "2C" (PREVIOUSLY "3") INDICATES THAT THE FILTER ALLOWS GOOD COLOUR RECOGNITION
4	INFRARED (IR) PROTECTION (EN 171): PROTECTION FROM HEAT
5	SOLAR PROTECTION (EN 172): 100% UV SUN GLARE PROTECTION WITH NO IR PROTECTION
6	SOLAR PROTECTION (EN 172): 100% UV SUN GLARE PROTECTION WITH IR PROTECTION

Shade number

	TYPICAL LENS COLOUR	VLT RANGE
1.2	CLEAR	100% - 74.4%
1.7	IN/OUT, YELLOW, CLEAR MIRROR, UVR	58.1% - 43.2%
2.5	BROWN, SMOKE	29.1% - 17.8%
3.1	G15, SMOKE MIRROR	17.8% - 8.0%
3, 4, 5, - 11	WELDING	-

STANDARD ANSI Z87.1-2010

Markings

+	THE GLASSES ARE RATED FOR A HIGH-VELOCITY IMPACT
S	THE LENSES HAVE A SPECIAL TINT
D3	PROTECTS FROM SPLASHES AND DROPLETS
D4	PROTECTS FROM DUST
D5	PROTECTS FROM FINE DUST
U	UV PROTECTION
R	INFRARED LIGHT PROTECTION
L	VISIBLE LIGHT FILTER
Z87-2	INDICATES THE LENSES ARE PRESCRIPTION LENSES
W	WELDING PROTECTION
H	EYEWEAR IS DESIGNED FOR SMALLER HEAD SIZES

STANDARD AS / NZS 1337.1-2010

Mechanical strength

S	LOW IMPACT
I OR F	MEDIUM IMPACT
V OR B	HIGH IMPACT
A	EXTRA HIGH IMPACT
M OR 9	MOLTEN METAL AND HOT SOLIDS
C OR 3	SPLASHPROOF
D OR 4	DUSTPROOF
G OR 5	GASTIGHT
O	OUTDOOR USE, UNTINTED
H	HIGH TEMPERATURE

Lens category

0	TRANSMITTANCE 80 - 100%
1	TRANSMITTANCE 43 - 80%
2	TRANSMITTANCE 18 - 43%
3	TRANSMITTANCE 8 - 18%
0	OUTDOOR UNTINTED - TRANSMITTANCE 80 - 100%