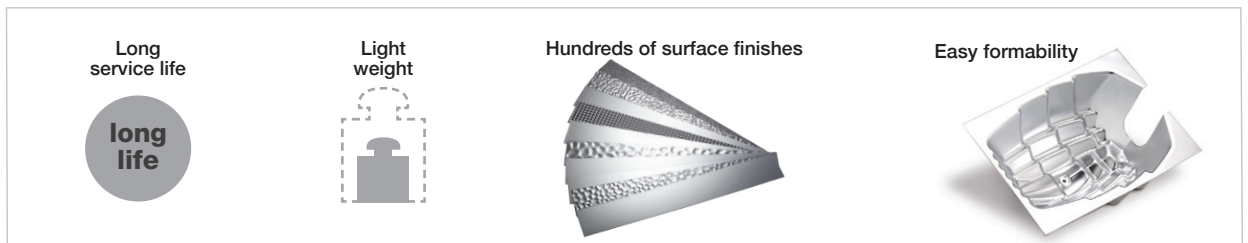
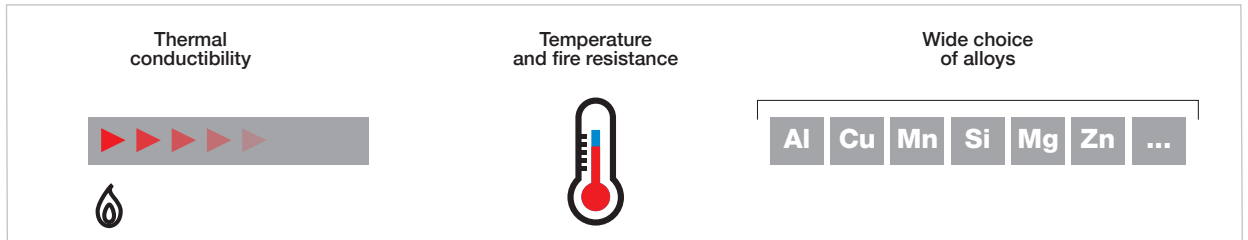
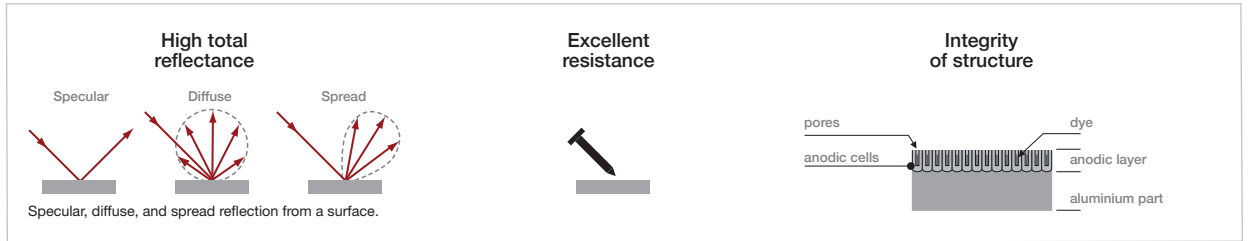


PRE-ANODIZED ALUMINIUM



Pre-anodized aluminium offers an excellent combination of high reflection and durability in a large range of finishes and qualities to suit most applications.

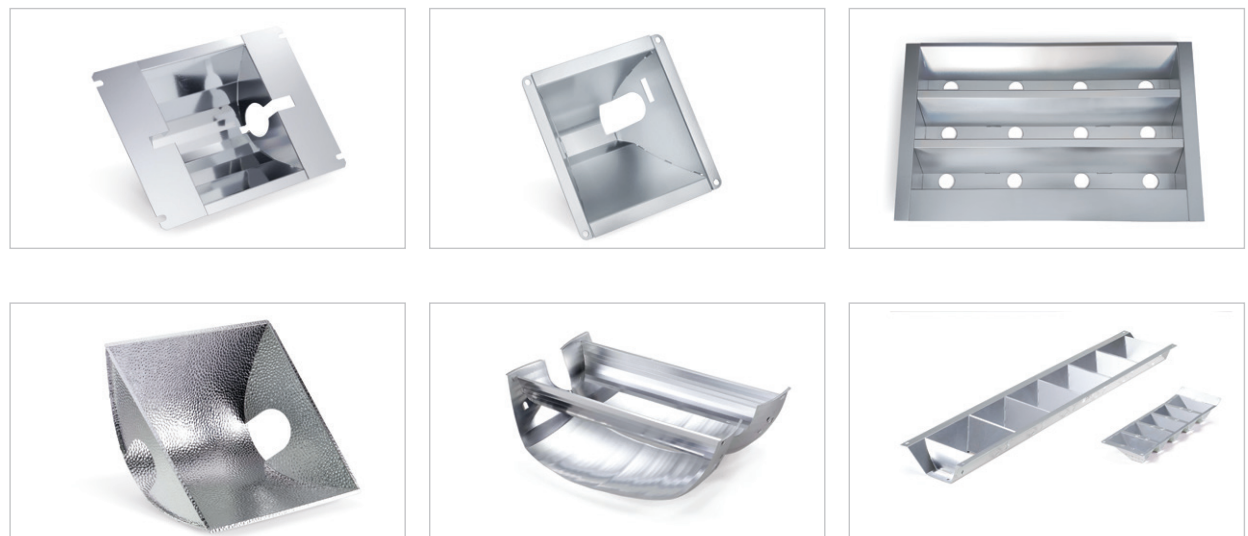
Key characteristics



Product structure

Versatile, flexible and durable, the pre-anodised aluminium provides high reflectance and durability in a wide choice of finishing. The process of electro-polishing and anodising cleanses the surface and protects it through the growth of a hard and transparent oxide layer, intimately binding it to the metal so as to impede delamination, and giving it excellent resistance to oxidation. Above all, the process of anodising ensures the aluminium those high total reflectance values that are essential to ensure the functionality in the lighting field.

Example of applications



pre-anodized technical data

Product	Type	Total reflectance [%]		Specular reflectance [%]		Diffuse reflectance [%]	Iridescence scale 1-4	Alloy purity	Temper (hardness)	Min. tensile strength [MPa]	Min. yield strength [MPa]	Min. [%] elongation A ₅ A ₁₀
		ASTM E 1651	DIN 5036-3	60° long	60° trans	DIN 5036-3						
S090	specular standard	86	86	80	77	15	1	Al 99.85	H18	125	105	2
S100	specular brilllox 1	86	86	82	80	12	2	Al 99.85	H18	125	105	2
S101	specular brilllox	86	86	83	81	10	2	Al 99.85	H18	125	105	2
S103	specular mirror	86	86	84	82	8	3	Al 99.85	H18	125	105	2
S106	specular reflex	87	87	85	84	6	3	Al 99.9	H18	125	105	2
S120	reflectormatt	85	85	60	38	77	3	Al 99.9	H19	140	115	1
S121	reflectormatt	84	84	55	35	80	3	Al 99.7	H19	150	125	1
S125	lumenal matt	85	85	70	65	66	3	Al 99.9	H18	125	105	2
S130/2	reflector diffuse	83	83	32	10	80	2	5005	H14	145	120	2
S130/4	reflector diffuse	82	82	28	9	80	3	5005	H14	145	120	2
S130BF	double faced reflector Satinox	78	78	9	4	77	4	5005	H14	145	120	2
S3010 BF	double faced reflector diffuse	78	78	17	5	80	3	5005	H14	145	120	2
S145	semi-specular	84	84	50	45	45	3	5005	H16	165	145	2
SD80	bright diffuse	84	84	35	30	80	4	Al 99.85	H19	140	120	1
S210	stucco	83**	83**	not relevant		82	3	Al 99.85	H18	125	105	2
S230	concave hammered	85**	85**	not relevant		84	3	Al 99.85	H18	125	105	2
S235	convex hammered	85**	85**	not relevant		84	3	Al 99.85	H18	125	105	2
S250	etched rigato	-	-	not relevant		-	4	5005	H14	145	120	4
S250.02	rigato	-	-	not relevant		-	3	5005	H14	145	120	4

**Measured on the flat surface before patterning

NOTE: Iridescence internal classification 1= normal, 2= low, 3= very low, 4= no iridescence

All information provided is based on up-to-date values where possible. Optical values are typical results from 0.4 mm (0.016") metal and are published for guidance only; they may vary according to raw material thickness. For more detailed information please contact our technical sales department.

Physical characteristics of the materials are in accordance with EN (European Committee for Standardization).

Applicable standards

Specular Reflectance (ISO 2813 - ASTM D-523)

Measurements are made by BYK - Gardner GmbH reflectometer.

Total Reflectance (DIN 5036-3)

Measurements are made using a 50 cm integrating sphere (Ulbricht Globe).

Total Reflectance at 30° (ASTM E 1651)

Measurements are made by the Technidyne TR2 integrating sphere.

Diffuse Reflectance (DIN 5036-3)

Measurements are made using our 50 cm integrating sphere with a specular exit port.

Class efficiency (EN 16268:2013)

Performance of reflecting surfaces for luminaire according to above measurements.

Test Standard For Anodic Oxidation

Microscopic measurement of oxide layer UNI EN ISO 1463.

European Standards (EN) for aluminium

Ente Nazionale Italiano di Unificazione (UNI)

Alloys UNI-EN 573-3

Mechanical Properties UNI-EN 485-2

Measuring Standards UNI-EN 485-4

General Tolerance

Thickness tolerance according to UNI-EN 485-4

Width tolerance: ± 0.15mm / ±0.00591"

Length-cut sheets: ± 1mm/m / ±0.03937"

Note

All materials listed above can be delivered in various sizes and shapes according to customer requirements.

Products with protective tape are guaranteed for six months after delivery if stored in a conditioned room (temperature 20-30°C and relative humidity 50-60%) and kept away from sunlight and any heating source.

Protective tape is not UV resistant.

Products are supplied with a peelable self-adhesive polyethylene protection tape, which guards against scratching during transportation and manufacturing.

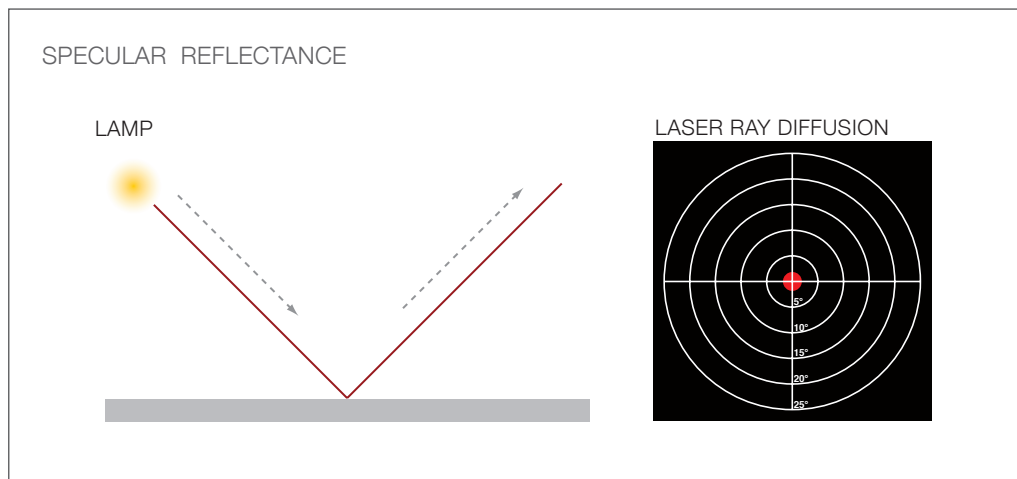
The samples shown in this catalogue are purely exemplary, although the materials and finishes correspond to the items listed.

For material approval and characterization, please ask for sampling.

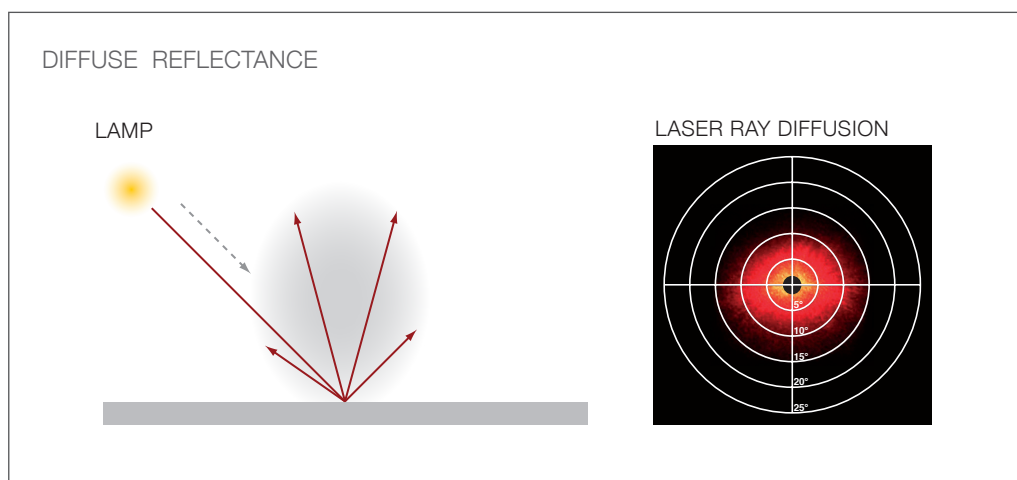


Reflectivity characteristics

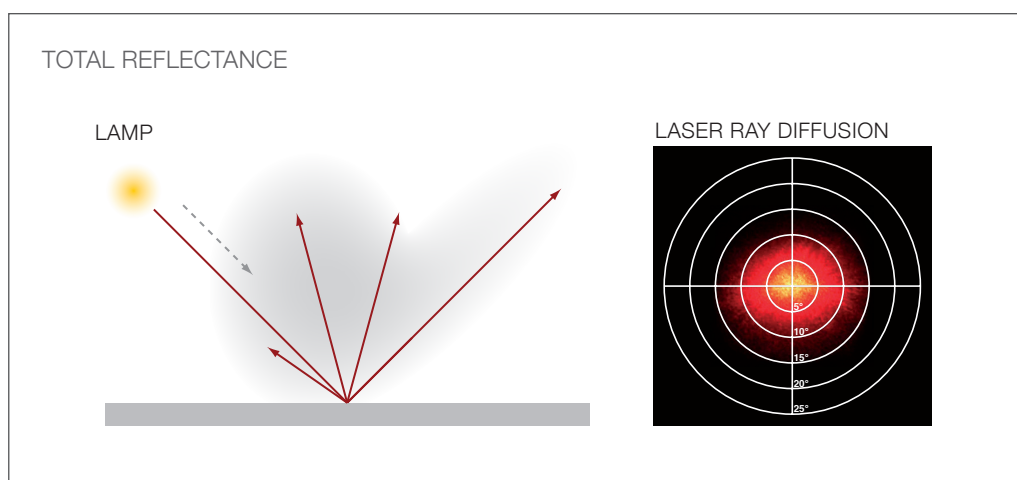
Each material is characterised by three complementary reflective properties



A measure of light reflected at an angle equal to the angle of incidence i.e. mirror reflection



A measure of the amount of scattered light



This encompasses the total amount of light reflected from the surface as a percentage of the incoming light



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