

Fact sheet 01: Overview of frame materials for spectacles

This document summarises the most light weight plastic and metal frame options suitable for older patients.

PLASTIC/CARBON FIBRE >

- Rigid
- Lightweight
- Very strong
- Limited range of colours
- Metal sides, with acetate end tips typically used to facilitate adjustability
- Latest models are cold glazed.

PLASTIC/GRILAMID TR90 AND TR55 >

- Lightweight
- High transparency
- Resistance to chemicals, water and stress cracking
- May be exclusive to a particular manufacturer.

METAL/TITANIUM >

- Very lightweight
- Very flexible
- Strong
- High degree of corrosion and abrasion resistance
- Hypoallergenic
- Sides may be made of a different material due to adjustment difficulties.

PLASTIC/SPX >

- Lightweight
- Strong
- Mouldable
- Highly elastic
- Impact resistant
- Dermatologically inert
- Twice as resistant to abrasion as cellulose acetate or propionate
- Exclusive to manufacturer Silhouette.

PLASTIC/CELLULOSE PROPRIONATE >

- Lighter than cellulose acetate
- Reasonably strong
- Temperature resistant
- Good elasticity
- Resistant to ageing.

METAL/ALUMINIUM >

- Rarely used until relatively recently – now found in some ‘designer’ ranges
- Lightweight
- Strong
- Very rigid
- Stain and tarnish resistant
- Can be anodised to produce a range of colours
- Extremely difficult to adjust
- Characteristic ‘chunky’ appearance.