## Comparison of the properties of Chromatics Safety Glass, ceramic-coated toughened glass and back-painted glass for use as splash backs/ interior secret fix cladding

Characteristics	Chromatics Safety Glass		Ceramic-coated Toughened/Tempered Glass		Back-painted glass	
Panels						
Certified BSEN 12600 safety glass at only 4mm thickness	Yes	✓	Yes	✓	No	×
Designed and certified for use with structural adhesives in secret fix applications	Yes	✓	No	×	No	×
Fully tested laminate product far exceeding BSEN 1542 pull-off test	Yes	✓	No	×	No	×
Can be safely installed with no visible fixings	Yes	✓	No	×	No	×
Susceptible to spontaneous catastrophic nickel sulphide breakages	No	✓	Yes	×	No	✓
Can be structurally bonded with no show through or damage to the coating	Yes	✓	No	×	No	×
Exterior grade durability	Yes	✓	Yes	✓	No	×
Shatterproof -remains safe and intact even when broken	Yes	✓	No	×	No	×
Will explode, break catastrophically, or shatter dangerously when broken	No	✓	Yes	×	Yes	×
Can be cut, drilled, jet cut & edge worked after process	Yes	✓	No	×	Yes	✓
Available as stock sheets	Yes	<b>√</b>	No	×	No	×
Non Combustible	Yes	✓	Yes	✓	No	×

Supports and propogates surface	No	<b>√</b>	No	<b>√</b>	Yes	×
spread of flame						
Bomb resistant panels available	Yes	✓	No	×	No	×
Free from rollerwave distortion and pinholes	Yes	✓	No	×	Yes	<b>√</b>
Will withstand moisture, humidity and extreme environments	Yes	<b>√</b>	Yes	<b>√</b>	No	×
Network rail approved product	Yes	<b>√</b>	Yes	✓	No	×
Available in any durable colour and/ or HD digital image	Yes	<b>√</b>	No	×	No	*
100% colour consistency panel to panel, batch to batch	Yes	✓	No	×	No	×
Dispose of without creating pollution either through incineration or landfill	Yes	✓	No	×	No	×
Withstands/ dissipates temperature differences across the panel	Yes	<b>√</b>	Yes	<b>√</b>	No	×
Can shield digital data from unwanted surveillance	Yes	✓	No	×	No	×
Coatings						
Could contain toxic elements, such as lead and other metals	No	✓	Yes	×	Yes	×
Contains harmful VOC's such as solvents	No	✓	Yes	*	Yes (80%)	×
Produces harmful by- products during the coating process	No	✓	Yes	*	Yes	×
Waste products from the process can be disposed of safely in landfill	Yes	✓	No	×	No	×
Applied at low-energy temperatures of maximum 200° C	Yes	✓	No	×	Yes	✓

Are applied at temperatures of more than 600° C	No	✓	Yes	×	No	✓
Are clean and require no special disposal methods from the production line	Yes	✓	No	×	No	×
Extraction required during manufacture	No	<b>√</b>	Yes	×	Yes	×
UV stable for more than 25 years	Yes	<b>√</b>	Yes	✓	No	×