



## GENERAL CONVERSION RULES FOR INDICATIVE DURABILITIES ACCORDING TO GEOGRAPHICAL AREA PLOTTER, WRAPPING, DIGITAL PRINTING AND PROTECTION FILMS FOR VEHICLES

### INDICATIVE DURABILITIES:

The indicative durabilities<sup>(1)</sup> specified on the technical data sheets of the PLOTTER, WRAPPING, DIGITAL PRINTING and PROTECTION FILMS FOR VEHICLES ranges are given for unmodified and unprocessed HEXIS films, for a vertical exposure ( $\pm 10^\circ$ ) in a central European climate (i.e. geographical area 1). The conditions of durability are inherent to this position up to a few degrees. Other positions accentuate climatic influences and an alteration in gloss or colour, or even a slight dusting may appear. Application to the vehicle bonnet is particularly severe, due to the horizontal exposure and the heat from the engine.

The chart below presents the conversion factors that enable the estimation of the durability<sup>(1)</sup> for a different exposure and/or geographical area.

	Area 1 Vertical	Area 1 Non vertical	Area 1 Horizontal	Area 2 Vertical	Area 2 Non vertical	Area 2 Horizontal	Area 3 Vertical	Area 3 Non vertical	Area 3 Horizontal
Calculation of indicative durabilities <sup>(1)</sup>	Indicative durabilities as on technical data sheets (id1)	id1 * 0.50	id1 * 0.35	id1 * 0.65	id1 * 0.35	id1 * 0.15	id1 * 0.35	id1 * 0.15	id1 * 0.10

#### Definition of climate zones:

##### Geographical area 1:

Andorra, Armenia, Austria, Azerbaijan, Belorussia, Belgium, Bosnia-Herzegovina, Canada, Croatia, Czech Republic, Denmark, Estonia, Finland, metropolitan France, Georgia, Germany, Greenland, Hungary, Iceland, Ireland, Italy (north of Rome), Kazakhstan, Latvia, Lichtenstein, Lithuania, Luxembourg, Moldova, Montenegro, Norway, the Netherlands, Poland, Romania, United Kingdom, Russia, Serbia, Slovakia, Slovenia, Sweden, Switzerland, Ukraine, USA (except states listed in area 2).

##### Geographical area 2:

Afghanistan, Albania, Argentina, Australia (southern States), Bahamas, Barbados, Belize, Bangladesh, Bhutan, Burma, Bolivia, Brazil, Bulgaria, Cambodia, Cape Verde, Caribbean islands, Chile, China, Cooperative Republic of Guyana, Cuba, Cyprus, Colombia, Costa Rica, Crete, Ecuador, El Salvador, Fiji, French West Indies (Guadeloupe, Martinique...), Greece, Guatemala, Guyana, Haiti, Honduras, India, Indonesia, Italy (south of Rome), Jamaica, Japan, Kyrgyzstan, Korea, Laos, Lesotho, Macedonia, Malaysia, Maldives, Malta, Mongolia, Nepal, Nicaragua, New Zealand, Pakistan, Panama, Papua-New-Guinea, Paraguay, Peru, Philippines, Polynesia, Porto Rico, Portugal, Dominican Republic, Sardinia, Singapore, South Africa, Spain, Sri Lanka, Surinam, Swaziland, Syria, Tajikistan, Taiwan, Thailand, East Timor, Turkey, Turkmenistan, Uruguay, USA (Arizona, California, Florida, Nevada, New Mexico, Texas, Utah), Uzbekistan, Venezuela, Vietnam, West Indies.

##### Geographical area 3:

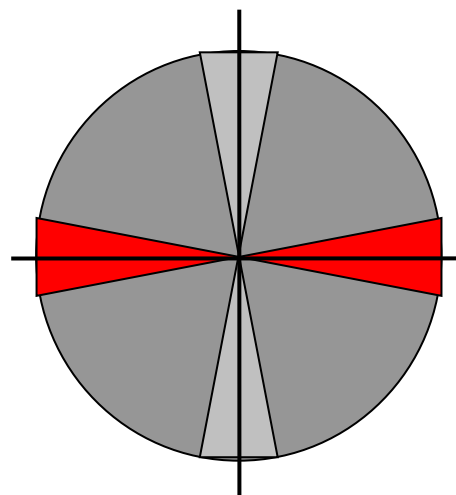
Algeria, Angola, Australia (northern and desert states), Bahrain, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Central African Republic, Chad, Congo, Democratic Republic of Congo, Djibouti, Egypt, Equatorial Guinea, Eritrea, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Iraq, Iran, Israel, Ivory Coast, Jordan, Kenya, Kuwait, Lebanon, Liberia, Libya, Madagascar, Malawi, Mali, Morocco, Mauritius, Mauritania, Mexico, Mozambique, Namibia, Niger, Nigeria, Oman, Palestine, Qatar, Reunion Island, Rwanda, Senegal, Saudi Arabia, Sierra Leone, Somalia, Sudan, Tanzania, Togo, Tunisia, Uganda, United Arab Emirates, Western Sahara, Yemen, Zambia, Zimbabwe.

All desert areas.

Areas at altitudes above 1000 m (3300 ft.).

**Definition of inclinations:**

Vertical exposure:	$\pm 10^\circ$ from vertical
Non-vertical exposure:	11 to $79^\circ$ from vertical
Horizontal exposure:	80 to $90^\circ$ from vertical



- The real durability of a product depends on a large number of parameters including, among others, the quality and preparation of the substrate, exposure (environment, climate and angle), graphics maintenance, degree of pollution, printing technology and quality of the inks used for the digital printing films.
- Recommendation (*whenever possible*): Sunlight and prolonged exposure to weathering and pollution may provoke ageing of the film<sup>(2)</sup>. A wrapped vehicle must be protected from sun and bad weather (rain, dew...) as often as possible: during the day, park in the shade; at night, park the car in a closed garage (otherwise, cover the vehicle with a loose protective cover).

**NOTES:**

(1) The indications of durability noted in this document do not constitute a binding guarantee. They are an estimate of the time during which the film retains a correct surface finish, from a conventional viewing distance.  
A slight and gradual change in colour and gloss is a natural and inevitable phenomenon inherent in the natural breakdown of the materials.

(2) If an important degradation of the film (due to prolonged exposure to sunlight, weathering, polluting agents) appears (discolouration, powdering, tanning...), it must be removed immediately from the vehicle in order to avoid any damage to the underlying paintwork.

Due to the great variety of substrates and the growing number of new applications, the installer must check the suitability of the medium for each application. All of the published information is based on measurements regularly performed in the laboratory. The published information does not however constitute a binding guarantee. The seller cannot be held liable for indirectly related damages and assumes no liability for claims that are higher than the replacement value of the purchased product. All specifications are subject to potential changes without prior notice. Our specifications are automatically updated on our website [www.hexis-graphics.com](http://www.hexis-graphics.com).