

Digital Image Requirements for New Online US Visa Application

Examples of Well-Composed Images



THE SUBMITTED DIGITAL FACE IMAGE MUST ADHERE TO THE FOLLOWING SPECIFICATIONS.

IMPORTANT NOTE: Please be advised that failure to comply with any of the following requirements may result in rejection of your image by the online image quality assessment test or by a human reviewer.

IMAGE REQUIREMENTS – TECHNICAL SPECIFICATIONS

ACQUISITION - The image file may be produced by acquiring an image with a **digital camera** or by digitizing a paper photograph with a **scanner**.

DIMENSIONS - Image pixel dimensions must be in a square aspect ratio (meaning the height must be equal to the width). Minimum acceptable dimensions are **600 pixels (width) – 600 pixels (height)**. Maximum acceptable dimensions are **1200 pixels (width) – 1200 pixels (height)**.

COLOR - Must be in color (24 bits per pixel) in **sRGB** color space (common output of most digital cameras).

FILE FORMAT - Must be in the Joint Photographic Experts Group (**JPEG**) file interchange format (JFIF).

COMPRESSION - The image may need to be compressed in order for it to be under the maximum file size. The compression ratio used should be less than or equal to 20:1.

ADDITIONAL REQUIREMENTS IF SCANNING:

PRINT SIZE - If scanning the image from a paper photograph, the size of the paper photograph should be at least 51 mm — 51 mm (2 inches — 2 inches) square.

RESOLUTION - Printed photographs should be scanned at a sampling frequency of at least 300 pixels per inch.

IMAGE REQUIREMENTS COMPOSITION

CONTENT

- The image must contain the full face, neck, and shoulders of the applicant in frontal view with a neutral, non-smiling expression and with eyes open and unobstructed and directed at the camera.
- All facial features must be visible and unobstructed.
- No extraneous objects, additional people, parts of the body below the applicant's shoulders, or other artifacts.
- The image must be from a recent (within 6 months) photo of the applicant.

HEAD SIZE

- The head height or facial region size (measured from the top of the head, including the hair, to the bottom of the chin) must be between 50% and 69% of the image's total height.
- The eye height (measured from the bottom of the image to the level of the eyes) should be between 56% and 69% of the image's height.

HEAD ORIENTATION

- Subject must directly face the camera.
- Head must not be tilted up, down, to the side, or toward the shoulders.
- Head must be centered within frame.

BACKGROUND

Subject must be surrounded by a plain, light-colored background with no distracting shadows on the subject or background.

FOCUS

The entire face must be in focus and not overly-sharpened.

BRIGHTNESS / CONTRAST

Brightness and contrast should represent subject accurately.

COLOR

- Image must be in color (24 bits per pixel).
- Black and white photos are not acceptable.
- Color should reproduce natural skin tones.
- Color must be continuous tone no posterization.

EXPOSURE / LIGHTING

- Photo may not be over- or under-exposed.
- Avoid shadows on face or background.

RESOLUTION

- Fine facial features should be discernible.
- No discernible pixels/pixelization, graininess, or dot patterns.

COMPRESSION

Image must not be overly compressed (the compression ratio used should be less than or equal to 20:1).

ALTERATION

- Digital enhancement or other alterations or retouching are not permitted.
- When resizing, the aspect ratio of the image must be preserved (no image stretching is allowed).

EYEGLASSES

- Eyeglasses are acceptable in photo only if the lenses are not tinted and there is no glare, shadows, or rims/frames obscuring the eyes. Glare on eyeglasses can usually be avoided by a slight upward or downward tilt of the head.
- Dark glasses or nonprescription glasses with tinted lenses are not acceptable unless you need them for medical reasons.

DECORATIVE ITEMS

- No sunglasses or other items that obscure the face.
- Hats or head coverings are only allowed if worn for religious reasons AND if they do not obscure any facial features, including ears.

COMPOSITION CHECKLIST 7 STEPS TO SUCCESSFUL PHOTO

- Frame subject with full face, front view, eyes open
- Make sure photo presents full head from top of hair to bottom of chin; height of head should measure 25 mm to 35 mm (1 inch to 1-3/8 inches)
- Center head within frame.
- Make sure eye height is between 28 mm and 35 mm (1-1/8 inches to 1-3/8 inches) from bottom of photo
- Photograph subject against a plain white or off-white background
- Position subject and lighting so that there are no distracting shadows on the face or background
- Encourage subject to have a natural expression

DIGITAL IMAGE

HEAD POSITION & PLACEMENT - HEAD SIZE

The **head height** or facial region size (measured from the top of the head, including the hair, to the bottom of the chin) must be between 50% and 69% of the image's total height.

The **eye height** (measured from the bottom of the image to the level of the eyes) should be between 56% and 69% of the image's height. Image pixel dimensions must be in a square aspect ratio (meaning the height must be equal to the width). Minimum acceptable dimensions are **600 pixels (width) x 600 pixels (height)**. Maximum acceptable dimensions are **1200 pixels (width) x 1200 pixels (height)**.

BRIGHTNESS, CONTRAST AND COLOR GUIDELINES

- Brightness and contrast should be adjusted to present the subject and background accurately
- Photos without proper contrast or color may obscure unique facial features
- Color should reproduce natural skin tones
- Fluorescent or other lighting with unbalanced color may cause unwanted color cast in the photo
- Appropriate filters can eliminate improper color balance.

PHOTOGRAPHING CONSIDERATIONS

Very dark or very light apparel may cause certain auto-exposure systems to overcompensate, resulting in overly dark or light flesh tones. A neutral gray card may be used to set exposure at a consistent level before placing the subject in the scene.

Contrast that is too high is usually due to the overall light and shade in the scene. Correct contrast can be achieved by directing diffused lighting onto the subject. Such lighting increases the local contrast while reducing the total contrast.

Picture is affected by the type of light used. Avoid mixing incandescent and fluorescent lighting. Corrective filters can improve the overall light that reaches the conventional film or digital camera sensor, and thus remove unnatural color effects. A neutral white card may be used to set the white balance level on some advanced digital cameras.

DEFINITIONS

ARTIFACTS – unnatural distortion, defects, noise, or patterns in the image.

ASPECT RATIO – image width divided by image height (x:y).

BACKGROUND – the area behind the subject; it should be smooth, flat, and non-patterned to minimize unwanted reflectance; the background should be plain white or off-white.

BIT – short for binary digit, which, in a computer, is the smallest unit of storage.

BRIGHTNESS – the amount of light and dark areas in an image.

CENTERING – the orientation of the facial region within the frame; head should be positioned such that the approximate horizontal mid-points of the mouth and bridge of nose lie on a vertical line at the horizontal center of the photo width; and a horizontal line through the center of the subject's eyes can be located between 56% and 69% from the vertical bottom of the photo.

COLOR BALANCE – how a camera reproduces the colors of a scene; using the wrong lighting can cause the colors to appear washed out or unnatural.

COLOR CAST – the overall bias towards one color in a color image.

COMPRESSION – the process of encoding an image using fewer bits than an unencoded representation would use with specific encoding scheme; file size reduction by the removal of data determined by an algorithm to be of lesser importance to the content of an image.

COMPRESSION RATIO – quantifies the reduction in data-representation size produced by a data compression algorithm; a representation that compresses a 10MB file to 2MB has a compression ratio of $10/2 = 5$, or 5:1.

CONTINUOUS-TONE – refers to an image where like colors in the subject and scene do not change abruptly - the opposite of posterization.

CONTRAST – the range of difference in the light to dark areas of an image.

DOT – the smallest element that can be printed by a digital printer.

ENHANCEMENT – the modification of an image.

EXPOSURE – in photographic terms is the product of the intensity of light and the time the light is allowed to act on the film, or digital camera sensor. In practical terms, the aperture controls intensity or amount of light and shutter speed controls the time.

EYE HEIGHT – the distance from the bottom of a passport or visa photo to a horizontal line going through both eyes; should measure between 56% and 69% of the image's height.

FACIAL FEATURES – the makeup or appearance of a subject’s face or its parts, including scars, tattoos, etc.

FACIAL REGION SIZE – the facial region, as measured from the bottom of the chin to the top of the head (including hair), should be between 50% to 69% of the image’s height.

FILE SIZE – the size of an image in digital photography, measured in kilobytes (KB), megabytes (MB), or gigabytes (GB). File size is proportional to its pixel dimensions; images with more pixels may produce more detail at a given printed size, but they require more disk space to store and are slower to print.

GRAININESS – the sand-like or granular appearance of an image. Graininess becomes more pronounced with faster film and the degree of enlargement. In digital imaging, graininess may occur as a result of printing an image, the pixel resolution of which is too coarse, or as a result of using a printer with poor dot resolution.

HEAD ORIENTATION – the positioning of the subject’s head, specifically positioning the face to the full frontal position, eyes level and open. For those individuals that wear glasses, proper head orientation is crucial in avoiding unwanted glare from glasses. Even so, care should be taken to meet the required facial area and face centering guidelines outlined in this brochure when positioning the subject’s head to remove the potential glare.

JPEG – Joint Photographic Experts Group, a common method of compression in photographic images.

LIGHTING ARRANGEMENT – the lighting arrangement for subject illumination which should consist of a minimum of 3 point balanced illumination; two (2) points of illumination should be placed at approximately 45 degrees on either side of the subject’s face, the third point should be placed so as to illuminate the background uniformly.

NATURAL EXPRESSION - The subject's expression should be natural, with both eyes open. Please refer to the photographs found on this website for acceptable facial expressions.

OVER-EXPOSURE - refers to a condition where too much light reaches the film or digital camera sensor, either because it is too bright or has been applied too long, resulting in a very light photograph.

PIXEL - short for picture element; a single picture element of a digital photo or displayed image. Taken together, all of the millions of pixels form a grid that represents the content of the image.

PIXELIZATION - the graininess in an image that results when the pixels are too big, relative to the size of the image.

POSTERIZATION - the effect produced when a photographic image is displayed or printed with too few colors or shades of gray; the opposite of continuous-tone.

PPI - short for pixels per inch; the measurement of resolution for displaying or printing digital images.

PRINT - refers to an exposed film picture that is printed on photographic paper, in color or black and white. In digital imaging, a print is the result of printing the digital image on photographic quality paper stock using a digital printer. For passport/visa photographs, the resulting print should measure 2 inches x 2 inches (51 mm x 51 mm).

RESOLUTION - refers to a measure of the detail that can be seen in an image; the higher the resolution, the finer the detail that can be seen.

RETOUCHING – the alteration of a printed photograph using tools such as an airbrush.

SAMPLING FREQUENCY – the number of samples (e.g., pixels) per unit (e.g., inch).

SHARPNESS - refers to whether an image appears to be in focus.

SRGB - refers to a standard default RGB color space. This is a device-independent color space designed to remove any color-bias from the representation of an image on the specified device.

STRETCHING – Lengthening the image in one dimension (e.g., y) disproportionately to the other dimension (e.g., x).

SUBJECT POSITIONING - the position of the subject with respect to the camera; the subject should be placed in front of the background such that the focal distance from the camera's lens to the subject's face should be no closer than 120 cm.

UNDER-EXPOSURE - refers to a condition where too little light reaches the film or digital camera sensor, either because the light is not sufficient or it hasn't been applied long enough; it results in a very dark photograph.