Alizarin Crimson

The problems with Alizarin Crimson have frustrated generations of oil painters who care about long-term color stability. Traditional Alizarin Crimson (pigment PR83, from madder root or synthetic versions) is fugitive—it fades noticeably under light, especially in thin glazes, tints, or washes. Over time, its rich deep crimson can shift to pale pink or nearly disappear, even in oils where thicker paint offers partial protection. This happens because the pigment breaks down under UV exposure. Historical works (like some by Turner) show this dulling, and modern tests confirm the risk in gallery or indirect sunlight conditions.

To address this, manufacturers created "Permanent Alizarin Crimson" using PR177 (Anthraquinone Red). Brands like Gamblin, Winsor & Newton, and M. Graham rate it highly (often ASTM I/excellent), claiming strong stability in oils. But independent long-term tests (including multi-year window exposures) show it can fade in tints or thin layers—sometimes almost as much as PR83—while full-strength masstone holds better. This means "permanent" claims can overstate reliability for diluted or glazed applications.

Modern pigments offer far better substitutes with similar transparent, cool crimson qualities and true lightfastness. Quinacridone-based reds (PR209 or PV19 in crimson versions) give luminous pinks, roses, and violets in tints, excellent glazing, and consistent ASTM I ratings—even in thin layers. Perylene Maroon (PR179) provides a deeper, slightly browner maroon-crimson that's exceptionally stable and fade-resistant for dark, transparent effects.

When using the crimson primarily as a darkening agent—especially mixed with burnt umber (PBr7) to deepen reds into richer, browner tones without going neutral black—perylene maroon (PR179) performs particularly well. Its earthy reddish-brown lean in masstone combines naturally with burnt umber's warm transparency to produce controlled, harmonious dark reds and muted browns that stay subtle and warm rather than muddy. This mix retains depth for shadows or glazing while avoiding overly cool shifts. Artist mixing reports highlight PR179's strength in such earthy combinations.

In conclusion, avoid traditional Alizarin Crimson (PR83) and be cautious with PR177-based "permanents" due to tint fading risks. The best substitute—especially when darkening reds with burnt umber—is perylene maroon (PR179) (available from brands like Daniel Smith, M. Graham, or Williamsburg as Perylene Maroon/Crimson). It delivers rock-solid lightfastness, transparency for glazing, and the warm earthy bias that enhances these mixes perfectly—ensuring darkened reds remain vibrant and archival for generations, so your artwork can be enjoyed by future generations without unexpected color shifts.

References:
- Handprint.com (Bruce MacEvoy) – Pigment notes on PR83, PR177, PR179, PR209, PV19
- Virgil Elliott, "The Artist's Handbook" and online pigment exposure tests (multi-year window fading results)
- ASTM D4303 (Lightfastness testing standard for artist pigments)
- Color of Art Pigment Database (Pigments through the Ages) – PR177 and PR179 entries
- Manufacturer technical sheets: Gamblin, Winsor & Newton, Daniel Smith, M. Graham (lightfastness ratings)
- WetCanvas forums and Jackson's Art Blog – Artist discussions and comparative mixing/lightfastness reports