

# Exfoliation of EPDM Coupon Surfaces by Bioprocess Soils

By [Joseph Wood](#), [Duncan Chadly](#), [Thomas W. Patapoff](#), [Terry Hudson](#), [Adeyma Arroyo](#) Oct 20, 2015 7:00 am PDT

In this study, the root cause of a staining phenomenon observed during cleaning studies performed using a specific lot of ethylene propylene diene monomer (EPDM) rubber coupons was investigated. Scanning electron microscopy and stereomicroscopy were employed to understand the mechanism of staining. Results suggest stains were artifacts of the reflective properties of the EPDM surfaces being enhanced by the exfoliation of partially attached particles during the soil drying process.

**This content is only available to IVT members.**

Get help maintaining your knowledge in Cleaning Validation. [Read More!](#)

If you are already a member and you do not have access to this article, [upgrade your membership](#).  
Need help? [Read our FAQs](#).

Tags:

[Cleaning Validation](#), [GCP](#), [JVT](#)

## [Joseph Wood](#)

Joseph Wood is on the process development engineering team at Genentech in South San Francisco.

[View Author Bio](#)

## [Duncan Chadly](#)

Duncan Chadly is on the process development engineering team at Genentech in South San Francisco.

[View Author Bio](#)

## [Thomas W. Patapoff](#)

Thomas W. Patapoff is a member of the early stage pharmaceutical team at Genentech in South San Francisco.

[View Author Bio](#)

## [Terry Hudson](#)

Terry Hudson is a member of the process development engineering team at Genentech in South San Francisco.

[View Author Bio](#)

## [Adeyma Arroyo](#)

Part of the Genentech Process Development Engineering Department.

[View Author Bio](#)

---

**Source URL:** <http://www.ivtnetwork.com/article/exfoliation-epdm-coupon-surfaces-bioprocess-soils>