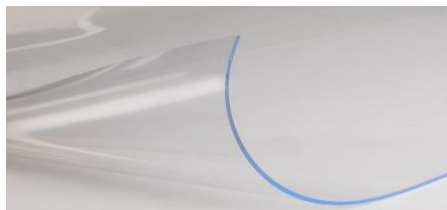


# REPELFLEX™

BENDABLE UV CURABLE HARD COAT



## OVERVIEW

RepelFlex™ is a UV curable hard coating that can be applied to plastics, metals, leather and fabric material. This coating has a unique chemical structure that combines two diametrically opposed characteristics. RepelFlex™ is hard which means it provides excellent scratch and stain resistance properties. Conversely RepelFlex™ is extremely flexible. A coated surface can bend up to 180° without RepelFlex™ cracking or de-lamination.



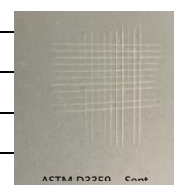
## TECHNOLOGY

RepelFlex™ is the result of using a unique chemistry formulation technique that manipulates different chemical groups. This is accomplished by using commonly known crosslinking UV cure functionalities combined into NBD's molecular structures. By utilization of NBD's structures, the crosslinking achieves the creation of the RepelFlex™ coating with characteristics there were previously not possible.

## TECHNICAL SPECIFICATIONS

Chemistry
Chemical Family: Organosilane
Room Temperature State: Liquid
Storage Recommendations: Amber Glass Bottle, 10° C – 45° C
Shelf Life: 1 year
Product Description: RepelFlex™ Formulation is applied via atomized spray followed by UV cure.

Material Characteristics
Thickness: 200-250 nanometers
Solvent free
Fluorine Free
Static contact angle: Water 110° / Dilodomethane 65°
ASTM D3359 - Cross Cut Adhesion Test: (5) - No de-lamination observed
ASTM D522 - Cylindrical Bend Test/Conical Mandrel - Pass
Static Bending: (R = 5mm, 7 days @70°C) – No deformation or cracking observed
Transparency: ≥ 90%
ASTM D3363 – Pencil Hardness Test: Glass Substrate - 8H (6H – 7H on plastic)
Martendale Blue Jean Abrasion – 1KG force, 5000 cycles - Pass



Appliance
Spray preferred, other wet based deposition available: dip or wipe
UV Cure – 10 seconds at 48kJ (using 400 watt lamp)

Handling
Chemical Stable at normal temperature and storage conditions
Avoid: Heat, flames and sparks