# Formulation

## 2K Waterborne PUR based on Bayhydrol A-145/ Desmodur XP 2410 using HALOX SW-111

| | | LBS | GALS |
|---|---|---|---|
| *COMPONENT A:* | | | |
| *GRIND* | | | |
| Bayhydrol A 145 | [1] | 234.69 | 26.53 |
| De-Ionized Water | | 54.77 | 6.56 |
| Tamol 681 | [2] | 7.00 | 0.78 |
| BYK-028 | [3] | 1.50 | 0.17 |
| Borchi Gel LW 44 | [4] | 1.77 | 0.20 |
| Ti-Pure R-960 | [5] | 228.91 | 7.03 |
| HALOX SW-111 | [6] | 33.00 | 1.38 |
| *High speed disperse to 7+ NS Hegman grind.* | | | |
| Bayhydrol A 145 | [1] | 251.50 | 28.43 |
| BYK-346 | [3] | 4.70 | 0.56 |
| BYK-028 | [3] | 1.50 | 0.17 |
| Tinuvin 5151 | [7] | 4.77 | 0.52 |
| De-Ionized Water | | 19.81 | 2.37 |
| *COMPONENT B:* | | | |
| Desmodur XP 2410 | [1] | 285.10 | 29.70 |
| TOTAL | | 1,129.02 | 104.41 |

### Formula Constants

| | |
|---|---|
| Density (lb/gal) | 10.81 |
| Density (g/L) | 1295.82 |
| Weight Pigment (%) | 23.20 |
| Volume Pigment (%) | 8.05 |
| Weight Solids (%) | 69.02 |
| Volume Solids (%) | 59.21 |
| PVC (%) | 27.43 |
| VOC (lb/gal) | 0.73 |
| VOC (g/L) | 87.31 |

### Formula Properties

| | |
|---|---|
| pH @ 25°C | 8.0 - 8.5 |
| Viscosity Part A- Stormer @ 25°C | 80 - 85 KU |
| Pot Life | 3 - 4 Hours |

| | |
|---|---|
| ***Cure Ratio by Wt. (A:B)*** | ***3:1*** |
| ***Cure Ratio by Vol (A:B)*** | ***2.5:1*** |

### Supplier Key

[1] Bayer Corporation
[2] Rohm and Haas
[3] BYK - Chemie USA Inc.
[4] Lanxess Corporation - Borchers Paint Additives
[5] DuPont Chemicals
[6] HALOX
[7] Ciba Specialty Chemicals





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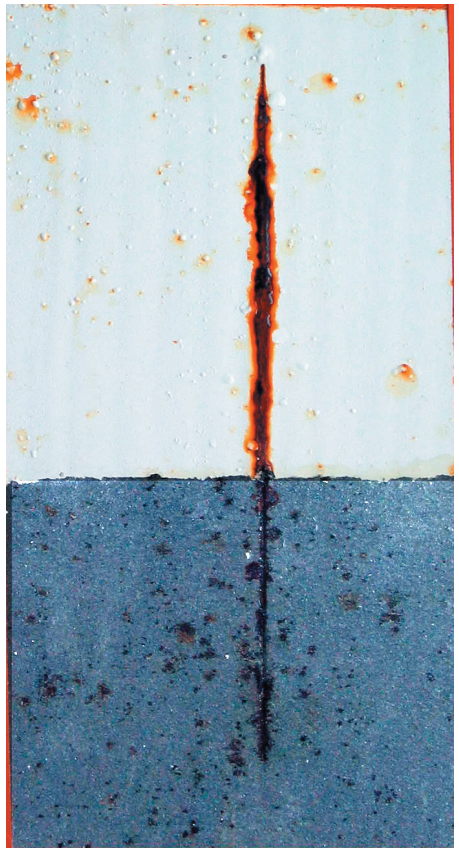
# Water Based Polyurethane

## 500 HOURS SALT SPRAY - SUBSTRATE: BLASTED HOT ROLLED STEEL

## 80 microns - % on total formula weight



3% Zinc Based Competitor
Corrosion Inhibitor

3% HALOX SW-111

a-145xp2410-sw111-e