

**Description:**

- TufCOR® 780 is vinyl acetate-acrylic copolymer emulsion designed for use as a base for formulation in caulk and sealant applications.
- This emulsion allows for high filler acceptance, while providing excellent package stability and good adhesion to a many construction substrates, including aluminum, glass and mortar.

**Suggested Applications:**

- Caulks & sealants
- Spackling compounds

**Features:**

- High efficiency binder, providing excellent filler acceptance
- Improves adhesion to aluminum, glass, mortar and wood substrates
- Excellent package stability
- Excellent formulation latitude
- Good gunnability and finish

**Storage & Handling:**

- Shelf life is approximately six months at 77° F.
- Consult MSDS for important health, safety and handling information before using this product.
- Consult Celanese's *Storing, Handling and Preserving Emulsion Products* brochure.

Typical Properties	
Solids	53-55%
Viscosity <sup>1</sup>	500 cps
pH	5.0-6.0
Clarity	Clear
Density	8.9 lbs/gal
Mechanical stability	Excellent
Freeze-thaw stable	Yes
Water resistance	Very good

<sup>1</sup> Brookfield RVF 20 RPM #3, @ 77°F



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**Suggested Starting Point Formulation**

RAW MATERIAL	Parts by Weight
<i>Part A</i>	
TufCor 771, (initially add 28g)	32.80
Triton X405, surfactant	0.72
Tamol 850, dispersant	0.19
Mergal 176, preservative	0.10
Propylene Glycol	0.90
Mineral Spirits	1.33
Foamaster NXZ, defoamer	0.01
<i>Part B</i>	
Natrosol 250, HEC	0.15
Benzoflex 2088, plasticizer	4.00
<i>Part C</i>	
Calcium Carbonate	58.64
<i>Part D</i>	
Ti O2	1.08
KTPP	0.08
<i>Part D</i>	
TufCor 771, add additional 4.8g	
<b>Total</b>	<b>100.00</b>

**Caulk Properties**

Solids %	82.0
pH	8.3
Viscosity, Brookfield 5rom T-spindle, cps	600,000
ASTM C 731 Extrudability @ 23C, g/sec	<2.0
ASTM D 2202 Slump, inches	<0.2
Channel Cracking, (0.5inch) 14 days @ 23C	None
ASTM C 794 Adhesion in Peel, pli	
Wood	25.2, 100% CF*
Glass	16.1, 100% CF*
Aluminum	17.0, 100% CF*
Mortar	16.8, 100% CF*
ASTM C 732 Aging Effects on Artificial Weathering	
Cracking	None
Discoloration	None
ASTM C 734A Low Temperature Flexibility, -18°C	
1 inch mandrel	No cracking, no adhesion loss
Freeze Thaw, 5 cycles at -18C	Excellent
Heat Stability, 2 weeks @ 50C	Excellent

\* Cohesive Failure

**Mixing Instructions**

- (1) Add ingredients from Part A to a planetary mixer (Ross Mixer) adjatate on medium speed for 5 minutes.
- (2) Add Part B ingredients together under separate ajitation for 2 minutes, then add to Part A in planetary mixer.
- (3) Slowly add all ingredients of Part C to planetary mixer, agitate for 30 minutes under 30in Hg.
- (4) Add Part D, adjitate for additional 20 minutes under 30in Hg.

**Caulk Features**

Solids,	82%
Pigment / Binder Ratio	3.31
Plasticizer on polymer solids	22.17%
Caulk Specific Gravity	1.57

**Suggested Raw Material Vendors**

- |                                 |                              |
|---------------------------------|------------------------------|
| (1) Imerys Perfomance Minerals- | Drikalite, calcium carbonate |
| (2) Genovique Specialties-      | Benzoflex 2088, plasticizer  |
| (3) Troy Corporation-           | Mergal 176, preservative     |
| (4) The Dow Chemical Company-   | Triton X-405, surfactant     |
| (5) The Dow Chemical Company-   | Tamol 850, dispersant        |
| (6) Cognis Corporation-         | Foamaster NXZ, defoamer      |

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## Technical Data Sheet

# TufCOR<sup>®</sup> 780 Emulsion

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