## Winter Deicer

- **Chemical Resistance**
  - **Non-Local Streets**: basic strength, not best resistant to magnesium chloride deicers. May need basic strength and DOCS meet resistant to magnesium chloride deicers.
  - **Med Collector & Arterial**: basic strength and DOCS meet resistant to magnesium chloride deicers.
  - **High**: DOCS meet Denver Spec? = 4500 psi, w/cm ≤ 0.45, air 5%-7% for 3/4" CA

- **Winter Deicer Chemical Resistance**
  - **Non**: Local Streets
    - MUST HAVE: 4500psi at 28 day, w/cm≤0.45, air 5%
  - **Med**: Collector & Arterial
    - MUST HAVE: also have minimum 20% flyash, as Clas Meets Denver Spec? =4500 psi , w/cm≤0.45, air 5%-7% for 3/4" CA
  - **High**: CDOT = IF Required to have or meet CDOT Class 2 sulfate mitigation in 601.04
    - MUST HAVE: MUST have only minimum 20% flyash, Meets CDOT Class Spec? QC & Design Owner or Executive
    - Only for this Site Class or lower = Sulfate Class Denver Street (CDOT Denver Flatwork - Paving (Collector & Arterial)

## Quick List

**Updated 3-19 by Dave Potter**

<table>
<thead>
<tr>
<th>Supplier</th>
<th>Mix Number</th>
<th>Made &amp; Sold as</th>
<th>Category</th>
<th>Mix</th>
<th>Approval</th>
<th>Slump</th>
<th>Resistant to</th>
<th>Supplier Mix Number</th>
<th>Mix</th>
<th>Approval</th>
<th>Slump</th>
<th>Resistant to</th>
<th>Owner or Executive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Velocity (VM)</td>
<td>451AF</td>
<td>B, D: 20 FA</td>
<td>2</td>
<td>Yes</td>
<td>w/cm = 0.43 per</td>
<td>4-8 slump</td>
<td>No</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td>Kevin Sobczak</td>
<td>303-260-9544=call</td>
<td></td>
</tr>
<tr>
<td>Velocity (VM)</td>
<td>CDE4212</td>
<td>18 hr high</td>
<td>0</td>
<td>yes</td>
<td>NO = No Flyash</td>
<td>NO = No Flyash</td>
<td>design</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td>Kevin Sobczak</td>
<td>303-260-9544=call</td>
<td></td>
</tr>
<tr>
<td>Velocity (VM)</td>
<td>CDO4500</td>
<td>B, D: no FA</td>
<td>0</td>
<td>yes</td>
<td>NO = No Flyash</td>
<td>NO = No Flyash</td>
<td>design</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td>Kevin Sobczak</td>
<td>303-260-9544=call</td>
<td></td>
</tr>
<tr>
<td>Velocity (VM)</td>
<td>CD4515</td>
<td>B, D: 15% FA</td>
<td>1</td>
<td>yes</td>
<td>Flyash</td>
<td>NO = Not enough</td>
<td>design</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td>Kevin Sobczak</td>
<td>303-260-9544=call</td>
<td></td>
</tr>
<tr>
<td>Velocity (VM)</td>
<td>CDM4515</td>
<td>low slump</td>
<td>1</td>
<td>yes</td>
<td>Flyash</td>
<td>NO = Not enough</td>
<td>design</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td>Kevin Sobczak</td>
<td>303-260-9544=call</td>
<td></td>
</tr>
<tr>
<td>Velocity (VM)</td>
<td>CDE4524</td>
<td>24 hr high</td>
<td>0</td>
<td>yes</td>
<td>NO = No Flyash</td>
<td>NO = No Flyash</td>
<td>design</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td>Kevin Sobczak</td>
<td>303-260-9544=call</td>
<td></td>
</tr>
</tbody>
</table>

**Metro Mix**

- **450BDP-FA**: B, D, P 2 Yes Class 2 = yes Class 2 = yes 15% Flyash 800 for traffic

**Martin Marietta**

- **CD4515**: B, C, P 0 yes NO = No Flyash NO = No F Flyash likely maybe maybe no Matt McCombs 720-413-8750=cell
- **CD4575**: B, C, P 0 yes NO = No Flyash NO = No F Flyash likely likely likely likely 720-612-6205=office
- **CD4995**: B, D, P (C flyash) 0 yes NO = No Flyash NO = No F Flyash likely likely likely likely

**Martin Marietta - Martin Marietta (rev 1-16-19)**

- **CD4515**: D Machine ? yes YES, 12 hour High likely likely likely likely
- **HE4224H**: E, 24 hr ? yes yes Early likely likely likely likely

**Brannon Ready Mix**

- **403164_N**: E, 24 hrs 2 Yes Class 2 = yes Class 2 = yes Amex_Federal, 7th to Howard Yes
- **451161_N**: D 2 Yes Class 2 = yes No Amex_Federal, 7th to Howard Yes
- **451161_S**: D 2 Yes Class 2 = yes No Amex_Federal, 7th to Howard Yes

**Ready Mixed (owned by Brannan)**

- **17670**: B & D, crushed rock 2 Yes, w/cm = 0.40 at 3 to 4" slump No annual 2018- April
| Ready Mixed                                      | 17871 | P, crushed rock | 2 | for paving | Yes, w/cm = 0.40 at 3" slump | annual 2018-2019 | April |
| Ready Mixed                                      | 17975 | D, high slump, crushed rock E = 12 hour P | 2 | for paving | Yes, w/cm = 0.33 at 5" slump | annual 2018-2019 | April |
| Ready Mixed                                      | 1771E | P, crushed rock E = 24 hour P | 2 | for paving | Yes, w/cm = 0.32 at 5" slump | annual 2018-2019 | April |
| Ready Mixed                                      | 87520 | B, median cover | 2 | Yes | Yes, w/cm = 0.40 at 3" slump | annual 2018-2019 | April |

**Ready Mixed**

- **17871**: P, crushed rock, 2 for paving. Yes, w/cm = 0.40 at 3" slump. Annual 2018-2019, April.
- **17975**: D, high slump, crushed rock E = 12 hour P. Yes, w/cm = 0.33 at 5" slump. Annual 2018-2019, April.
- **1771E**: P, crushed rock E = 24 hour P. Yes, w/cm = 0.32 at 5" slump. Annual 2018-2019, April.
- **87520**: B, median cover. Yes. Yes, w/cm = 0.40 at 3" slump. Annual 2018-2019, April.

**Sanitary Ready Mixed**

- **45V0152C**: D, P, low slump. 1 yes. NO = No Flyash. NO = No Flyash. w/cm = 0.45 per design. not deicer, not deicer resistant. not deicer, not deicer resistant. not deicer, not deicer resistant. 580 for traffic.
- **45V0154C**: D, P, hand work. 1 yes. NO = Not enough Flyash. NO = Not enough Flyash. w/cm = 0.30 per design. not deicer, not deicer resistant. not deicer, not deicer resistant. not deicer, not deicer resistant. 380 for traffic.
- **30V0115E**: E = high early P; 10% Flyash. 1 yes. NO = No Flyash. NO = No Flyash. w/cm = 0.41 per design. not deicer, not deicer resistant. not deicer, not deicer resistant. not deicer, not deicer resistant. yes, yes, yes. 380 for traffic.

**Aggregate Industries**

- **547201**: D & P. 1 yes but its low slump. 1 yes but its low slump. yes. Ames, Federal, 7th to Howard. No.