

Description	<p>Polyacrylamide (PAM) is a chemical that can be applied to disturbed soils at construction sites to reduce erosion and improve settling of suspended sediment.</p> <p>PAM increases the soil’s available pore volume, thus increasing infiltration and reducing the quantity of stormwater runoff that can cause erosion. Suspended sediment from PAM-treated soils exhibit increased flocculation over untreated soils. The increased flocculation aids in their deposition, thus reducing stormwater runoff turbidity and improving water quality.</p>								
Applications	<p>PAM is suitable for use on disturbed soil areas that discharge to a sediment trap or sediment basin. PAM is typically used in conjunction with other BMPs to increase their performance. PAM can be applied to the following areas:</p> <ul style="list-style-type: none"> ▪ Rough graded soils that will be inactive for a period of time ▪ Final graded soils before application of final stabilization (e.g., paving, planting, mulching) ▪ Temporary haul roads prior to placement of crushed rock surfacing ▪ Compacted soil road base ▪ Construction staging, materials storage, and layout areas ▪ Soil stockpiles ▪ Areas that will be mulched 								
Limitations	<table border="0" style="width: 100%;"> <tr> <td style="width: 50%;">Drainage area – unlimited</td> <td style="width: 50%;">Maximum slope – unlimited</td> </tr> <tr> <td>Minimum bedrock depth - N/A</td> <td>Minimum water table - N/A</td> </tr> <tr> <td>NRCS soil type - ABCD</td> <td>Freeze/thaw – fair</td> </tr> <tr> <td>Drainage/flood control – no</td> <td></td> </tr> </table> <ul style="list-style-type: none"> ▪ PAM should not be directly applied to water or allowed to enter a water body. ▪ Do not use PAM on a slope that flows into a water body without passing through a sediment trap or sediment basin. ▪ PAM will work when applied to saturated soil but is not as effective as applications to dry or damp soil. ▪ PAM designated for erosion and sediment control should be “water soluble” or “linear” or “non-cross linked.” 	Drainage area – unlimited	Maximum slope – unlimited	Minimum bedrock depth - N/A	Minimum water table - N/A	NRCS soil type - ABCD	Freeze/thaw – fair	Drainage/flood control – no	
Drainage area – unlimited	Maximum slope – unlimited								
Minimum bedrock depth - N/A	Minimum water table - N/A								
NRCS soil type - ABCD	Freeze/thaw – fair								
Drainage/flood control – no									
Targeted Pollutants Application Guidelines	<p>Sediment</p> <ul style="list-style-type: none"> ▪ PAM should be used in conjunction with other BMPs and not in place of other BMPs, including both erosion and sediment controls. ▪ Stormwater runoff from PAM treated soils should pass through a sediment control BMP prior to discharging to surface waters. <ul style="list-style-type: none"> ✓ When the total drainage area is greater than or equal to 5 acres, PAM treated areas should drain to a sediment basin. 								

- ✓ Areas less than 5 acres should drain to sediment control BMPs, such as a sediment trap, or a minimum of three check dams per acre. The total number of check dams used should be maximized to achieve the greatest amount of settlement of sediment prior to discharging from the site. Each check dam should be spaced evenly in the drainage channel.
- Do not add PAM to water discharging from the site.
- On PAM treated sites, the use of silt fence and fiber rolls should be maximized to limit the discharges of sediment to sediment traps and sediment basins.
- All areas not being actively worked on should be covered and protected from rainfall. PAM should not be the only cover BMP used.
- PAM can be applied to wet soil, but dry soil is preferred due to less sediment loss.
- Proper application and re-application plans are necessary to ensure total effectiveness of PAM usage.
- PAM, combined with water, is very slippery and can be a safety hazard. Care should be taken to prevent spills of PAM powder onto paved surfaces. During an application of PAM, prevent over spray from reaching pavement, as pavement will become slippery. If PAM powder gets on skin or clothing, wipe it off with a rough towel rather than washing with water; this only makes cleanup messier and longer.

Maintenance

- Inspect BMPs prior to forecast rain, daily during extended rain events, after rain events, weekly during the rainy season, and at 2-week intervals during the non-rainy season.
- Areas where erosion is evident should be repaired and BMPs re-applied as soon as possible. Care should be exercised to minimize the damage to protected areas while making repairs, as any area damaged will require re-application of BMPs.
- PAM should be reapplied on actively worked areas after a 48-hour period if PAM is to remain effective.
- Reapplication is not required unless PAM-treated soil is disturbed or unless turbidity levels show the need for an additional application.
- If PAM treated soil is left undisturbed a reapplication may be necessary after 2 months.
- More PAM applications may be required for steep slopes, silty and clayey soil (USDA Classification Type “C” and “D” soils), long grades, and high precipitation areas.
- When PAM is applied first to bare soil and then covered with straw, a reapplication may not be necessary for several months.