



Driven by Innovation - Partners in Performance

Issue Date: June 11, 2019
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Revision Date: N/A

Product Questionnaire

Company Name: _____

Contact Name: _____

Phone Number: _____

Email Address: _____

Mailing Address: _____

Delivery Address: _____

Project Name: _____

Proposed Application Date: _____

1. Target for this project (end goal/expectation for this project)

- Dust Control Soil Stabilization

2. Project Area and Products (dimensions of project surface area and solutions to be used)

Project Area	Length	Width	Which solutions will be used?		
Area A			<input type="checkbox"/> DustStop	<input type="checkbox"/> EarthZyme	<input type="checkbox"/> Both
Area B			<input type="checkbox"/> DustStop	<input type="checkbox"/> EarthZyme	<input type="checkbox"/> Both
Area C			<input type="checkbox"/> DustStop	<input type="checkbox"/> EarthZyme	<input type="checkbox"/> Both
Area D			<input type="checkbox"/> DustStop	<input type="checkbox"/> EarthZyme	<input type="checkbox"/> Both

3. Project Environment (site's seasons and temperature)

Season	Duration (months)	Low Temperature	High Temperature	Average Temperature
Spring				
Summer				
Autumn				
Winter				

4. **Fugitive Dust** (does site have fugitive dust?)
(i.e. dust resulting from wind, vehicle movement or other activities)

Yes No Other _____

5. **Material Type** (choose one option best describing project site)

<input type="checkbox"/> Sandy	<ul style="list-style-type: none"> • Granular material • Finer than gravel and coarser than silt • Particles range in diameter between 0.0625mm and 2mm
<input type="checkbox"/> Well Compacted Fines	<ul style="list-style-type: none"> • High clay/silt content • Cohesive soils (clay/silt) that are dense and tightly bound together
<input type="checkbox"/> Light Gravel Content	<ul style="list-style-type: none"> • Fine-sized/dirty gravel (more fines) • 4 to 8mm particulate gravel
<input type="checkbox"/> Medium Gravel Content	<ul style="list-style-type: none"> • Medium-sized/less dirty (less fines) • 8 to 16mm particulate gravel
<input type="checkbox"/> High Gravel Content	<ul style="list-style-type: none"> • Coarse gravel (little to no fines – difficult to compact) • 16 to 32mm particulate gravel
<input type="checkbox"/> Other (Please specify slag, limestone, etc.)	

6. **Material Properties** (material on project site hydrophobic?)

Yes No

7. **Traffic Frequency** (choose one option best describing project site)

	Vehicles per hour	Vehicles per 8 hours	Vehicles per 12 hours	Vehicles per 24 hours
<input type="checkbox"/> Low	Up to 10	Up to 80	Up to 120	Up to 240
<input type="checkbox"/> Medium	10 – 25	80 – 200	200 – 300	240 – 600
<input type="checkbox"/> High	Over 25	Over 200	Over 300	Over 600
<input type="checkbox"/> Constant	<ul style="list-style-type: none"> • Exceeds 25 vehicles/hr and has steady passage of vehicles at stable intervals over extended periods of time. 			
<input type="checkbox"/> No Traffic i.e. - Tailings Pile	<ul style="list-style-type: none"> • Any static pile of material (including storage piles) that is not exposed to vehicle or foot traffic. 			

8. Average Traffic Speed (average speed at which most vehicles will travel the road)

- 50 kph or less (30 mph or less)
- 50 – 70 kph (30 – 45 mph)
- Over 75 kph (45 mph)
- No Traffic i.e. - Tailings Pile

9. Traffic Type (choose one option best describing project site)

	Vehicle Weight (tons)	Vehicle Weight (kg)	Vehicle Weight (lbs)
<input type="checkbox"/> Light	Less than 22	Less than 22,000	Less than 48,500
<input type="checkbox"/> Medium	22 – 100	22,000 – 100,000	48,500 – 220,462
<input type="checkbox"/> Heavy	More than 100	More than 100,000	More than 220,462
<input type="checkbox"/> No Traffic	Static area that is not exposed to vehicle or foot traffic. i.e. – tailings pile		

10. Construction Equipment Availability (fill tables regarding equipment availability)

	How Many	What Capacity (L)	Spray Boom Type (If known)
Water Truck(s)			

	How Many	What Type
Compactor(s)		
Reclaimer(s)/Pulvimixer(s)		
Grader(s)		

11. Application Type (choose all options listed best describing your site(s))

<input type="checkbox"/> Mine Haul	<ul style="list-style-type: none"> • A crude road built to facilitate the movement of people, equipment, and/or materials along the route of a job. • A road built to carry heavily loaded trucks (60-450 ton) at a good speed; the grade is limited and usually kept to less than 17% of climb.
<input type="checkbox"/> Access Road	<ul style="list-style-type: none"> • A road providing a means of entry into a region or approach to another road, site or project; usually exposed to heavy traffic (not as significant as a haul road). • A road that provides access to a specific destination, as to a main highway or to a property that lies within another property.
<input type="checkbox"/> Secondary Road	<ul style="list-style-type: none"> • A road supplementing a main road, usually wide enough and suitable for two-way, all-weather traffic at moderate or slow speeds (lighter vehicles than an access road).
<input type="checkbox"/> Parking Lot	<ul style="list-style-type: none"> • A cleared unpaved area that is intended for parking vehicles, these surfaces can be exposed to additional shear forces not found on other road types due to static shear (static wheel forces when steering while stopped).
<input type="checkbox"/> Erosion Control	<ul style="list-style-type: none"> • The practice of preventing or controlling wind or water erosion in agriculture, land development, coastal areas, river banks and construction.
<input type="checkbox"/> Non-road	<ul style="list-style-type: none"> • Any static pile of material that is not exposed to vehicle or foot traffic. • Also includes storage piles, rail car material, etc.

*Please submit any pictures and additional notes you may have, that may give us a better understanding of your project site(s) along with this questionnaire.

ANSWER QUESTION 12 ONLY FOR DUST STOP APPLICATIONS

12. Current Dust Control Methods

Type (water, chlorides, etc.)	
Application Frequency <i>e.g. – 1x/month @ 2L/m²</i>	

ANSWER QUESTIONS 13 & 14 ONLY FOR EARTHZYME APPLICATIONS

13. Soil Classification

EarthZyme works with the clay fraction of the soil to stabilize and strengthen the compacted soil and to ensure optimum performance it is important that the soil contain a minimum clay content.

14. The soil tests listed below are required to determine the suitability of the soil. Please send the completed Product Questionnaire to your Cypher Environmental contact, they will provide you with a quote and soil sample instructions at that time.

Particle Size Analysis (ASTM D422 – 63 (2007)) – **Sieve Analysis**

Liquid Limit, Plastic Limit and Plasticity Index (ASTM D4318 – 10) – **Atterberg Test**

15. Road Construction (fill table regarding site’s road construction if possible)

Sub-Base	Material:		Depth (inches):	
Road Base	Material:		Depth (inches):	
Drainage	<input type="checkbox"/> Yes <input type="checkbox"/> No			
Existing CBR*				

*Definition of the California Bearing Ratio (CBR): a simple strength test comparing the bearing capacity of a material with that of a well graded crushed stone.