

## TECHNICAL ASSISTANCE REQUEST:

- (1) Environmental Testing: The team has received data by San Antonio Testing Labs for the products for environmental testing to compare with current AEP (Asphalt Emulsion Product) : For Example in Table 1 for TSW. More testing by a national lab, private facility, and/or member of the American-Made Network could help.

Table 1  
Comparison of AEP to TerraSealWhite (TSW)  
Constituents of Concern 2018 Laboratory Data

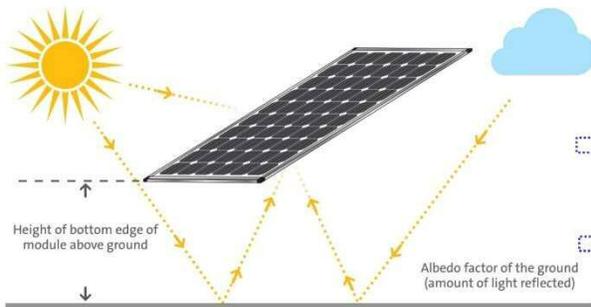
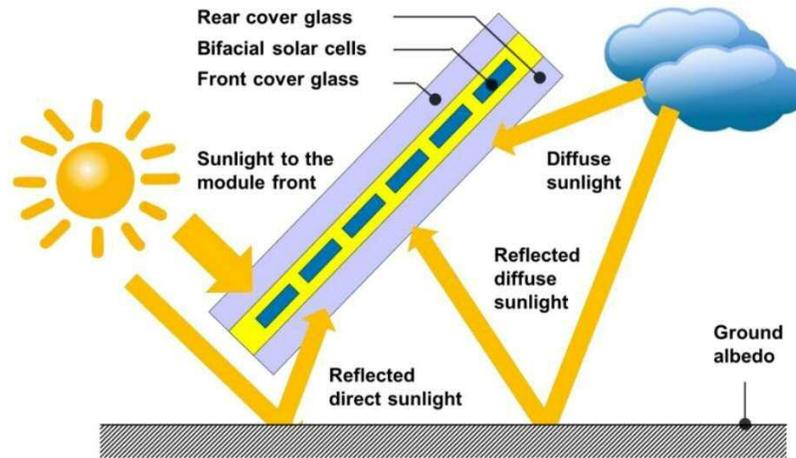
Chemical	Concentration (mg/kg)	
	AEP	TerraSealWhite (TSW)
Nickel	1.58	<1.00
Benzene	7.3	<0.025
Toluene	89	<0.025
Ethylbenzene	71.3	<0.025
Xylenes	370	<0.075
Fluorene	6.1	<19.8
Napthalene	38	<19.8
Phenanthrene	15.4	<19.8
Pyrene	7.3	<19.8
Total Petroleum Hydrocarbons		
C6-C12	13400	<50
C12-C28	123000	<50
C28-C35	<500	<50
C6-C35	137000	<150

### Notes:

(a) only those constituents detected in one or both samples are shown on the table AEP sample 3/19/18 and TerraSealWhite (TSW) sample 5/8/18. Emulsion Product (AEP) is a mixture of asphalt oil and water and is used as a dust suppressant and base treatment prior to asphalt application. As a hydrocarbon based product, it contains chemicals not necessarily friendly to the soil and stormwater runoff. Chemicals such as benzene, pyrene, naphthalene, and C6-C35 hydrocarbons are present in the high percentage levels and some are known and possible carcinogens.

(b) Samples were analyzed by San Antonio Testing Labs, a NELAP certified lab, following EPA approved test methods. Full analytical reports are available for both samples.

(2) Bi-Facial Solar Panels Reflection Testing for HR-TS, and TSW: Testing by a national lab, private facility, and/or member of the American-Made Network could tremendously help the products HR-TS, TSW for commercialization.



Schematic of a system using bifacial modules

SURFACE TYPE	ALBEDO
Green field (Grass)	23%
Concrete	16%
White painted concrete	60-80%
White gravel	27%
White roofing metal	56%
Light grey roofing foil	62%
White roofing foil (for solar applications)	> 80%

TABLE 1: Albedo values of certain ground surfaces measured