

DURA-BASE

Advanced Composite Mat System



DURA-BASE Advanced-Composite Mat System provides a set of products for temporary roads and temporary job sites. The System includes the DURA-BASE mat, the turning mat and the half mat. The DURA-BASE mat is the primary working product for heavy duty matting needs. The turning mat provides a 10-degree change of direction in a single lane temporary road. The half mat complements the regular mat and provides increase coverage and flexibility in job site layouts.

Strength

DURA-BASE is a load spreading product and is designed to function in conjunction with a supporting sub grade. Full scale laboratory testing has demonstrated mat tolerance to extreme deflection while maintaining high load bearing capacity in pure bending. Pure compressive crush load capacity of the mat structures is approximately 600 psi (40kg/cm²) when supported by an unyielding surface.



Environmental Performance

DURA-BASE mats are made from high-density polyethylene (HOPE) and are 100% recyclable through our mat recycling program. From this program, AFCO 360 is taking a proactive approach to reduce the overall HOPE carbon footprint. DURA-BASE mats are non-absorbent which prevents environmental risk from cross-contamination threats, including invasive species. This allows for complete decontamination at the end of the project which wood products cannot claim. Wood mats retain contaminants and cannot be effectively cleaned - only effective method of completely removing the risk of cross-contamination is burning or burying them. Our manufacturing process allows for 100% utilization of the plastic. Remaining scrap material is reintroduced into the process.



Applications

- **Upstream Oil & Gas**
- **Pipeline**
- **Downstream**
- **Utilities**
- **Heavy Haul**
- **Events**
- **Military**
- **Any project requiring safe, temporary roads or job sites**

Hot Weather Performance

DURA-BASE Mats are deployed worldwide, including places that experience extreme hot wet jungle and hot dry desert conditions. HOPE plastic melts at around 121 °C (250° F), therefore any exposure to temperatures near or above this level is strongly discouraged. Typical long term operating conditions should not exceed 66°C (150° F). Our DURA-BASE mats can withstand intermittent temperatures of 82°C (180° F) without issue. Damage of mats can occur with long exposure of temperatures above 82°C (180° F).



Cold Weather Performance

DURA-BASE mats have been successfully used in environments where temperatures of minus 34.4°C (minus 30° F) were observed for an extended period of time. In an effort to characterize the mats low temperature performance, our team explored ASTM D746-07 Brittleness Temperature of Plastics and Elastomers by Impact. The results from an independent laboratory indicate that the ASTM D 746-07 Brittleness Temperature for our mats is below minus 90°C (minus 135° F). In our environmental chamber at our world class R&D facility, we have exposed our mats to minus 51.11° C (minus 60° F).

Traffic

Traffic tests on differing soil conditions have shown DURA-BASE to be suitable for an average expected life in excess of 15 years when properly used and maintained. Fatigue tests have shown no appreciable damage at 60,000 cycles [6 inch (15 cm) deflection of 8 foot (2.5 m) span].

Static Dissipation

Plastics, left untreated, exhibit poor electrical conductivity. This condition, when present in mat material, can lead to a buildup of static charge on the plastic or personnel and result in arcing (mild shock). DURA-BASE Composite Mats contain an additive that combines with the plastic and increases the conductivity, rapidly dissipating any charge and reducing the potential for static buildup. Tests have shown the mat surface conductivity to be approximately 10e8 Ohms. The upper limit for a dissipative material is 10e10 Ohms. Field tests have shown the dissipative properties of the composite mat to be equal to those of wooden mats.

General Specs



DURA-BASE Mat

DURA-BASE Turning Mat

DURA-BASE Half Mat

	DURA-BASE Mat	DURA-BASE Turning Mat	DURA-BASE Half Mat
Overall Dimensions	8' x 14' x 4"	7' x 14' x 4"	8' x 7'6" x 4"
	2.44 m x 4.27 m x 10.2 cm	2.13 m x 4.27 m x 10.2 cm	2.44 m x 2.29 m x 10.2 cm
Surface Dimensions	7' x 13'	58 sqft	7' x 6'6"
	2.13 m x 3.96 m	5.38 sqm	2.13 m x 1.98 m
Weight / Mat	1000 lbs (454 kg)*	750 lbs (340 kg)*	550 lbs (249 kg)*
Material	Custom HDPE	Custom HDPE	Custom HDPE
Coefficient of Friction	0.6**	0.6**	0.6**

*All measurements and weights are nominal. **For wet neoprene rubber on mat surface.

All tests were performed by third party laboratories or are values from the broad literature on polymers. The information provided above is representative of the materials of construction, manufacturing processes and performance of the DURA-BASE mat, including the test results noted. AFCO 360 makes no representations or warranties with regard any marketing or promotional materials, including, without limitation, the information and data provided herein, which is subject to change at any time without notice. The representations and warranties provided by AFCO 360 in connection with the sale or rental of DURA-BASE products are contained exclusively in our Terms and Conditions and Installation & Handling manual.