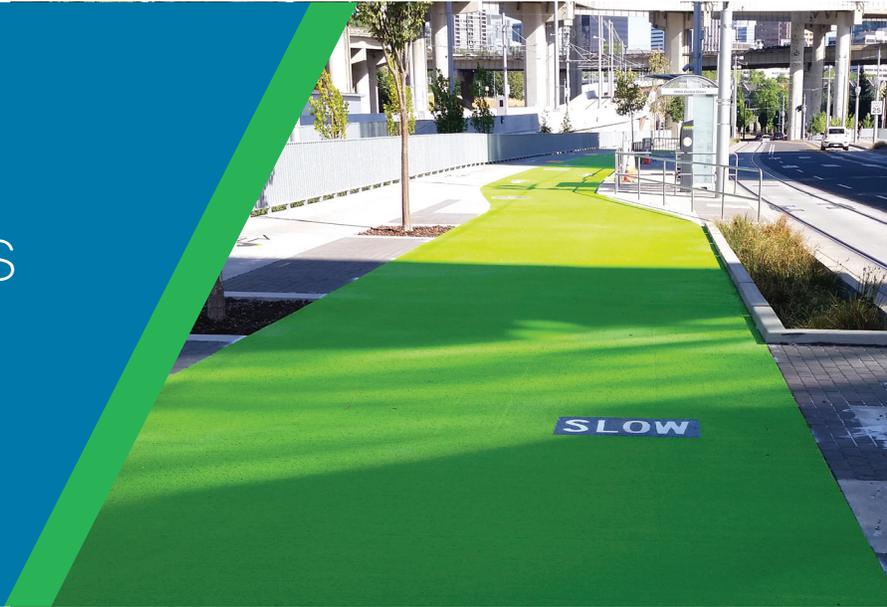


Ennis-Flint® by PPG

MMAX® Extended Season

Area Markings

Next-gen,
extended-season
MMA area markings



New formulation offers year-round application and other substantial improvements

Designed especially for warm-weather regions, the all-new, next-generation ENNIS-FLINT® by PPG MMAX® Extended Season area markings offer the widest temperature application range in the market. For the first time ever, it is possible to apply MMA markings on pavement surfaces as hot as 150° F (66° C) and with triple the working time of most competitors on surfaces at 110° F (43° C) or more.

The new formulation also makes use of corundum – the hardest, most wear-resistant anti-skid aggregate on the market – making MMAX area markings eligible for top-tier skid-resistance specifications.



Design

Increases the maximum workable surface temperature in current formulation from 105-150° F (41-66° C)

Maximum longevity: highest peak and sustained hardness among competitors

Available in the top seven colors, with more to follow



Installation

Maximum workability on substrates with temperatures ranging from 35-150° F (2-66° C)

Can be applied using either squeegee or spray technique



Pedestrian Safety

Super-hard corundum anti-skid aggregate included in kits, improving upon our already remarkable traction

Enhances visibility of dedicated lanes, while providing clear delineation and traffic calming



Compliance/Certification

EF Green and Transit Lane Red colors meet FHWA chromaticity coordinates for use in bike and bus lanes, respectively

Facility is ISO 9001:2015 certified for the design, development and manufacturing of colored lane treatments



Benchmarking studies versus competitors

Performance	Spec Range: PPG QA	MMAX Extended Season Green Area Markings	MMAX Green Area Markings	Competitor A	Competitor B	Competitor C
Viscosity (ASTM D562, Ku)	90 - 102	93	91	112	134	95
Hardness Peak (ASTM D2240, Shore D)	55 - 90	81	77	65	33	72
Hardness Sustained (Internal Spec, Shore D)	50 - 80	72	70	61	28	65
Cure Time: Minutes @ 75° F (ASTM D711)	15 - 30	30	24	25	24	35
Gel Time: Minutes @ 75° F (AASHTO T-237)	8 - 15	14	11	11	11	17
Light Fastness: ΔE CMC/1,500h (ASTM G155)	< 3.0	1.33	1.68	6.02	1.84	1.25
Aggregate Type (Mohs Scale Hardness)	-	Corundum: 9	Corundum: 9 Sand: 7	Not supplied by manufacturer	Bauxite: 8.5	Unknown
Packaging						
Space to mix aggregate in pail		Yes	Yes	No	Yes	No
Secondary container needed		No	No	Yes	No	Yes
Pail		Steel	Steel	Plastic	Steel	Steel

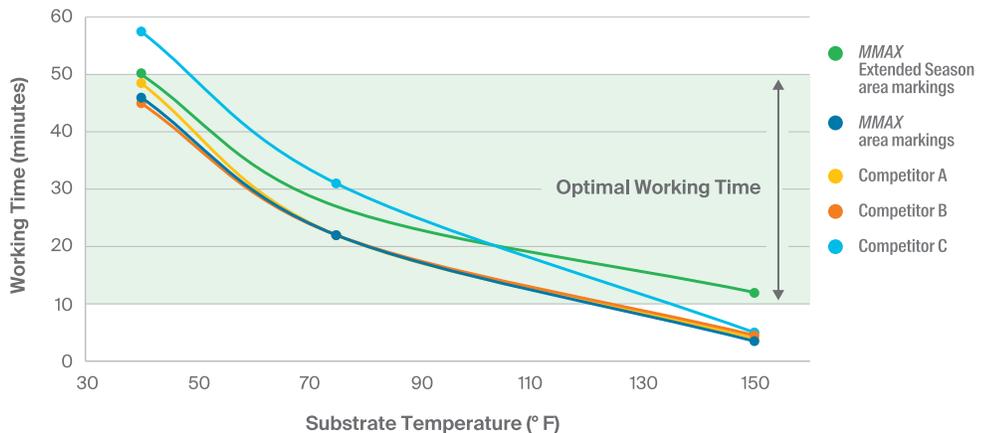
Exceptional color retention

MMAX Extended Season Green area markings retain their color longer than Competitor A's Green in ASTM G155 accelerated weathering.



Maximum workability on the widest variety of substrate temperatures

MMAX Extended Season area markings are the only product that provides sufficient working time at higher temperatures while maintaining low-temperature workability. Working time is defined as 75% of tack-free time.



WARNING: Certain colors of this product may contain chemicals known to the State of California to cause cancer and/or reproductive harm. For more information go to P65Warnings.ca.gov.

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