EMULSIFIED CORE BINDERS

Features:

- Direct substitute for core oils
- No special or new equipment required for protection & no special emission control equipment necessary
- Easily pumped from bulk storage
- Good sand flowability. No sticking in boxes whether blown or hand rammed
- Good collapsibility-excellent sand reclamation
- Reduced emissions & smoke
- No fire hazards
- Optimum baking temperatures are reduced

PACKAGING:
Drums
Pails

Hill and Griffith 523 and 683 **EMULSIFIED CORE BINDERS** are formulated with water, drying type oils, surfactants, cross-linking resins, hardeners and biocides to produce a stable emulsion used in making sand shapes. 523 and 683 **EMULSIFIED CORE BINDERS** were developed to meet increasing environmental demands set forth by the Environmental Protection Agency.

TYPICAL PRODUCT DATA
(These values are not intended for use in preparing specifications.)

	523	683
Appearance	Light yellow	Tan to yellow
Density (Lbs./Gal.):	8.20	7.84
Viscosity (cps.):	950	2000
Solids (% / wt.):	44-46	56-58
Flash Point:	None	None
Specific Gravity:	0.983	0.94

APPLICATION:
523 and 683 **EMULSIFIED CORE BINDERS** are used the same way a conventional or solvent less core oil is used. For initial trials it is recommended that the 523 and 683 **EMULSIFIED CORE BINDERS** be substituted directly into the current sand mix at the same percentage as the core oil. It may be necessary to increase binder levels by 1/2% over conventional core oil. Because the smoke producing solvents have been replaced with water, it may also be necessary to reduce the water content in the sand mix by 1/3 to 1/2.

Generally, the 683 **EMULSIFIED CORE BINDER** is used when higher strengths are desired and/or if the sand mix contains Bentonite.

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www.hillandgriffith.com orders@hillandgriffith.com

EMULSIFIED CORE BINDERS

TENSILE STRENGTH DATA
(Percentages are based on sand)

Sand Mix	5040 Wedron Sand
1%	Binder
1%	Cereal
3%	Water
Baking Temperature	400° F

	Tensiles (PSI)	
Baking Time (Min.)	**523**	**683**
30	250	275
45	300	400
60	360	450
75	380	465
90	400	480

Used as a Core Oil Replacement (523 Emulsified Core Binder)

Features elimination of the smoke normally encountered when baking out cores made with conventional core oils.

Suggest initially replacing core oil with the same amount of 523 Core Binder. Since the smoke producing solvents in conventional Core Oils have been replaced with water, you may have to reduce the water by 1/3 to 1/2 of that used in the regular oil sand mix.

Kerosene in the sand mix as a release agent is not required.

Do not use Bentonite in the sand mix as soft cores will result.

Baking temperature 350 - 425° F.

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