Technical Data Sheet

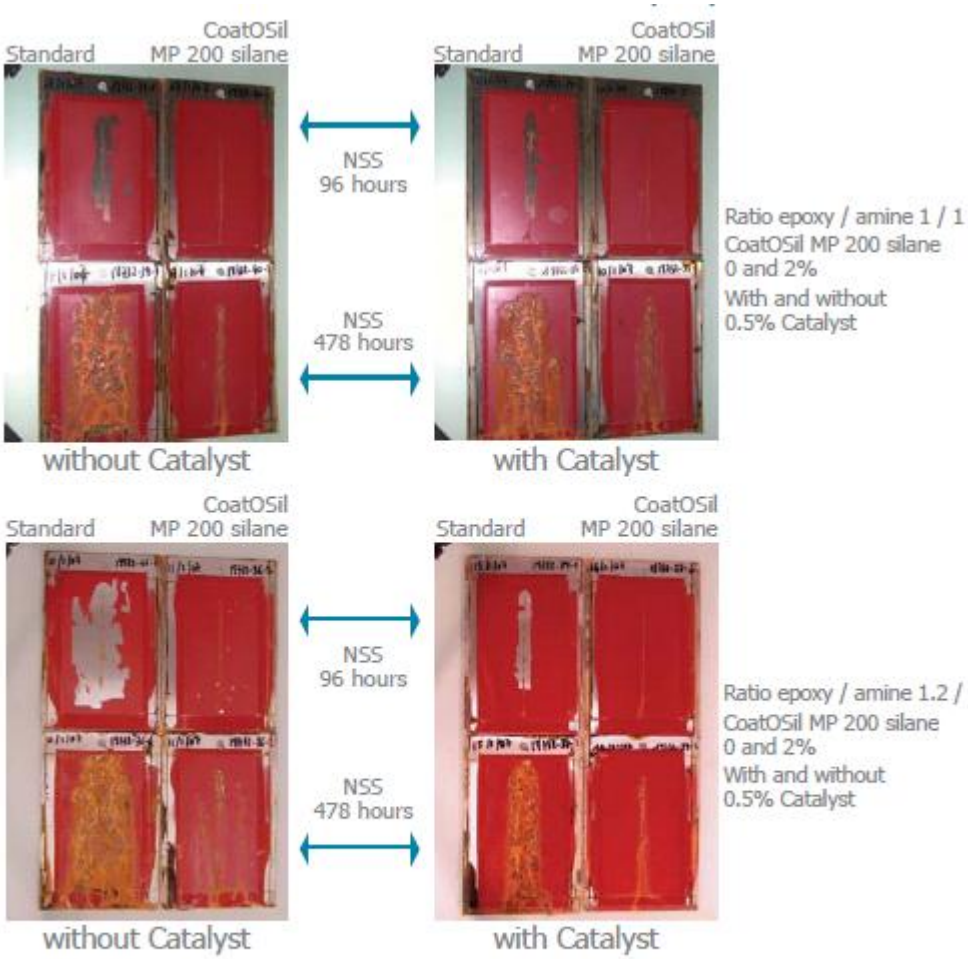
CoatOSil™ MP 200

CoatOSil* MP 200

Description

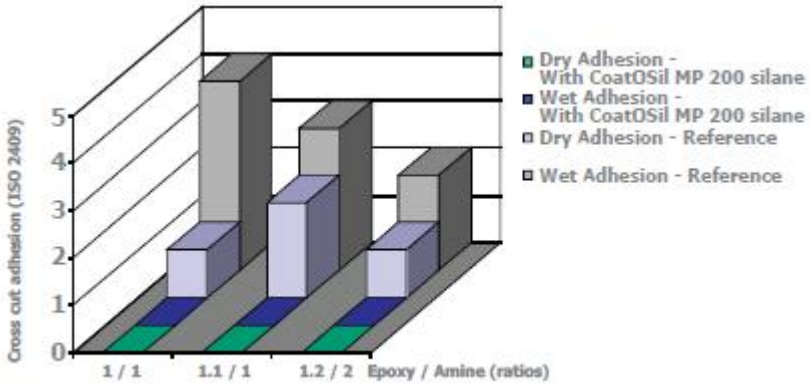
CoatOSil MP 200 silane is an epoxy functional silane oligomer that may be considered for use as an adhesion promoter or binder in polysulfide, urethane, epoxy and acrylic caulks, sealants, adhesives and coatings. The product is a polyfunctional structure bearing gamma-glycidoxy groups, which is an excellent candidate to consider to reduce emissions of methanol upon hydrolysis of the material as compared with monomeric epoxy silanes. It typically aids adhesion promotion and crosslinking of water borne or solvent based coatings as well as dispersion of metallic pigments in water borne systems.

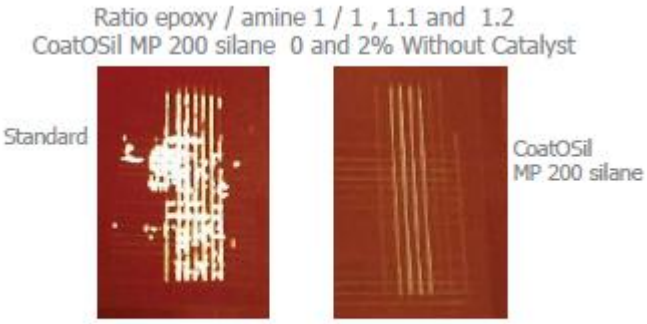
Corrosion Resistance - Neutral Salt Spray



CoatOSil MP 200 silane can help significantly increase the corrosion resistance of 2K HS epoxy primer. It can lower the impact of epoxy/amine ratio and catalyst content.

Cross Cut Adhesion ISO 2409-1972





CoatOSil MP 200 silane can help signifi cantly increase the adhesion performances of 2K HS epoxy primer.

Key Features and Benefits

The gamma-glycidoxy propyl epoxide ring available in CoatOSil MP 200 silane can react with many different organic functionalities, while the alkoxy silane groups still available on the oligomeric structure typically bond strongly to inorganic substrates. The hydrolytic stability of CoatOSil MP 200 silane can help provide better shelf life than normal monomeric silanes, thus providing better durability in solvent borne systems. Specific hydrolysis conditions can be applied to hydrolyze the material so CoatOSil MP 200 silane may be considered for use in waterborne systems.

2K HS Epoxy Paint Pigment Paste Preparation

Red Iron Oxide Dispersion Paste	
Material	**Weight (parts)**
Epoxy Resin (EEW; 3.8-4.25 mmole/g)	26.91
Antifoam	0.41
Dispersing Agent	0.54
Mix fi rst part prior to pigment dispersion – introduce under dispersion	
Red Iron Oxide	26.16
Anticorrosive Pigment	5.58
Kaolin Clay	11.77
China Clay	11.77

Barium Sulfate	7.68
Dispersion 1500 rpm / 30 minutes, max. temp. 40°C – Hegmann Gauge = 5	
Total	81.38

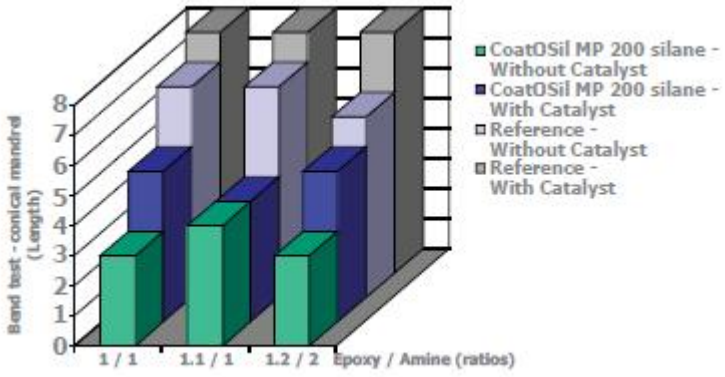
2K HS Epoxy Paint Paint Formulation

High Solid Epoxy Paint	
Material	**Weight (parts)**
Red Iron Oxide Dispersion Paste	81.38
Epoxy Resin (EEW; 3.8-4.25 mmole/g)	2.75 to 4.75
CoatOSil MP 200 silane	0, 1 or 2
Mix fi rst part – introduce under dispersion	
Methyl Ethyl Ketone	3.12
1 Methoxy-2-propanol	0.78 to 1.56
Xylene	0 to 1.53
Part A: Mixing 600 rpm	
Curing Agent	7.66 to 9.47
Ratio (Epoxy Resin + CoatOSil MP 200 silane) / Amine: 1, 1.1 or 1.2	
Amine Catalyst	0 or 0.5

Typical data are average data and actual values may vary. Typical data shall not be used as product specifi cations.

Product formulations are included as illustrative examples only. Momentive makes no representation or warranty of any kind with respect to any such formulations, including, without limitation, concerning the effi cacy or safety of any product manufactured using such formulations.

Bend Test - Conical Mandrel ISO 6860-1984



Ratio epoxy / amine 1 / 1 to 1.2
CoatOSil MP 200 silane 0 and 2% With or without 0.5% Catalyst

CoatOSil MP 200 silane can help improve bending resistance of 2K HS epoxy primer. It can minimize impact of accelerating catalyst on bending resistance.

Typical Physical Properties

Properties	**Typical Impact of CoatOSil MP 200 silane**
Dry adhesion (cross cut)	Improved
Wet adhesion; (cross cut after immersion test)	Improved
Hardness	No impact
Impact resistance (Reverse)	Improved
Bending resistance (Conical mandrel)	Improved
Corrosion resistance (NSS)	Improved

Patent Status

Standard copy to come

Product Safety, Handling and Storage
Standard copy to come

Limitations
Standard copy to come

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