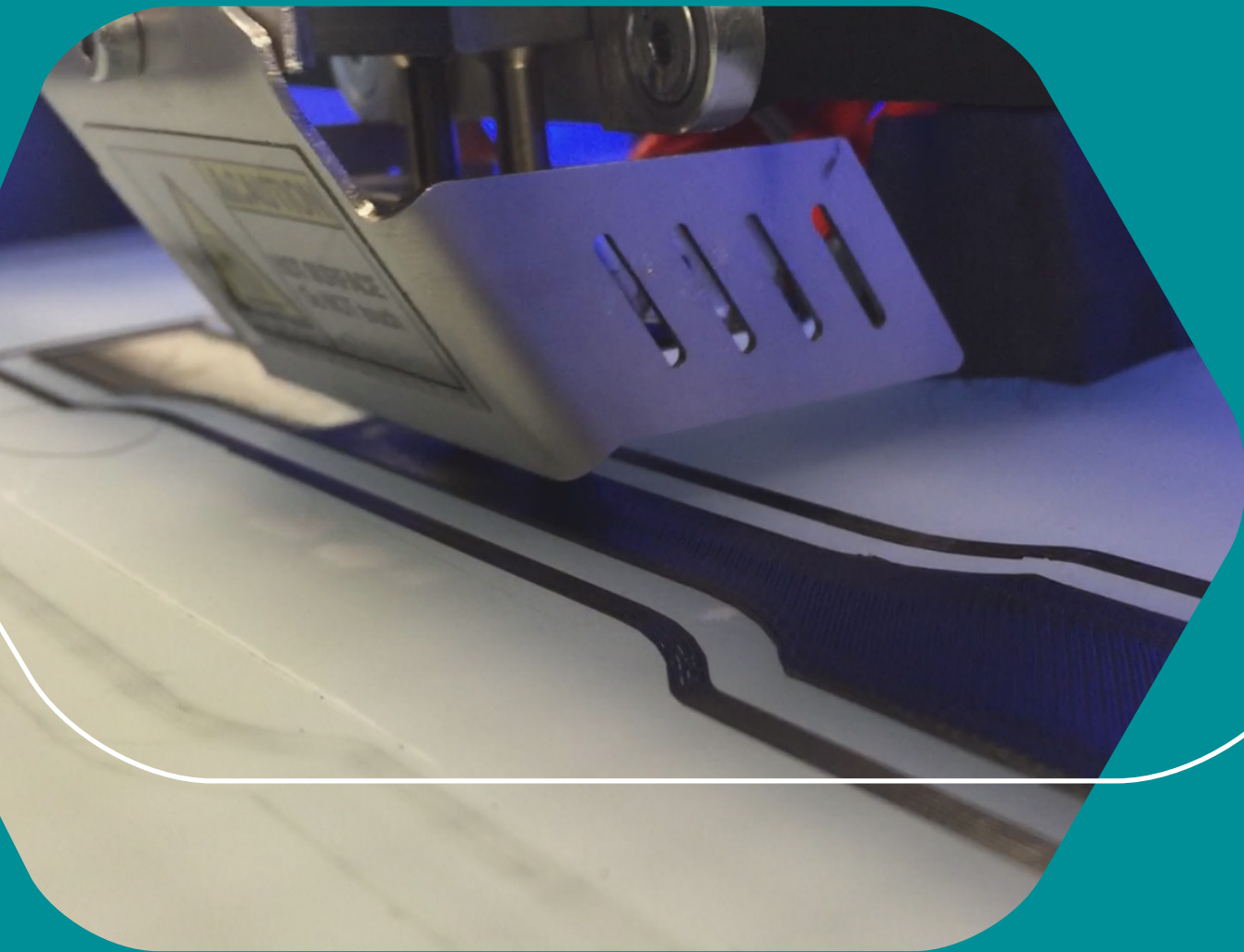


Creating Material Change



SynerG Conductive Ink & Paste F070040 Technical Data Sheet



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SYNERG Conductive Ink & Paste

Gas Barrier Resistant Primer

Haydale's SYNERG is a primer designed to be used in coating which provides excellent water, oil and grease resistance along with excellent MVTR and OTR properties.

Chemical family: Graphene and polymer

Health and Safety: See the Material Safety Data Sheet (MSDS) and product labels before use.

Physical properties:

Test Item	Performance
Appearance	Cream colored, semi-translucent liquid
Solid type	Graphene and polymer
Brookfield Viscosity (cps): Spindle Number: RPM:	250-500 3 60
EZ Cup Viscosity (sec) Cup number:	12-16 3
Surface tension	30 -35 mN/m
pH	7.0 – 8.0
Specific gravity(g/cm ³):	0.9 – 1.2 g/cm ³ at 25°C + 2°C

Transmission Rates of other Gases at 0% RH

Film type	Dry thickness (micron)	H ₂ (20°C)	N ₂ (25°C)	CO ₂ (25°C)	Ar(35°C)	O ₂ (20°C)
OPP	12	10,000	730	9,100	8,100	5,200
F070040	15	5,900	584	4,550	4,212	2,652
	20	5,192	461	3,458	3,327	2,090
	25	4,154	346	2,524	2,562	1,571
	30	3,281	266	1,944	1,845	

Measuring conditions: 0%RH cm³/m².day.atm according to ISO 14663-2



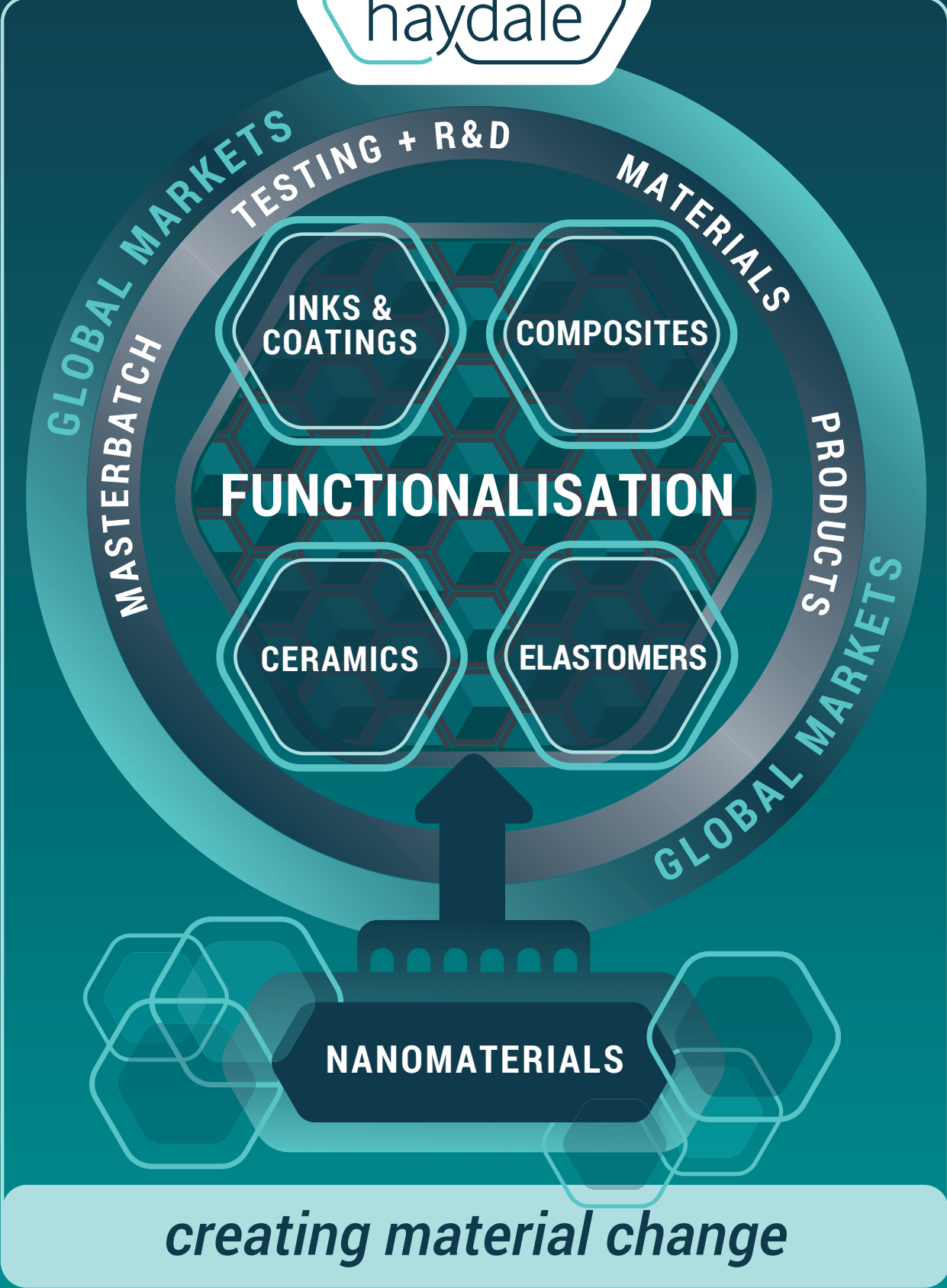
Application Data

SYNERG F070040 may be applied by either a rod or blade. When applied on 200gsm OPP using a 10 rod, this product typically demonstrates 15-minute Cobb values of <3gsm, 3M oil resistance of 11 and MVTR values of <4g/100 in.sq./24hr. at 38 deq.C/90% R.H.

Storage and handling:

Typical guidelines and methods	
Coating equipment	Rod or blade printer either automatic or manual type.
Substrate type	Typical plastics, for example OPP, PET, PC, etc.
Curing condition	Can be dried at 130-150°C for 30-50 s in box oven.
Before use	Stir vigorously to be homogeneous.
Clean up solvent	Pre-clean the substrate surface with ethanol or iso-propanol to eliminate any contaminant and to protect non-homogeneous film after coating ink.
Storage	After use, its container should be tightly closed to prevent evaporation of any solvent store at 5-25°C and avoid freezing.
Shelf life	6 months.

The content supplied in this technical data sheet ("Information") supersedes all previous versions supplied. Version 1, September 2019
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