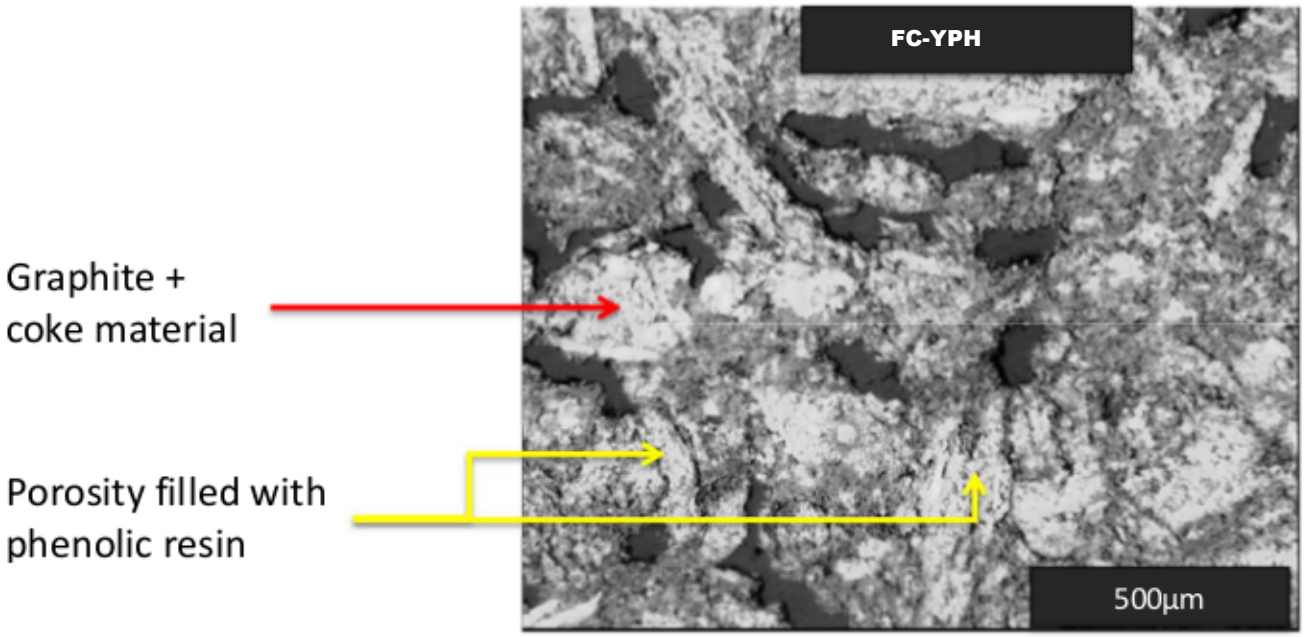
GRAPHITE IMPREGNATED YPH - GRADE

Micrography of our impregnated graphite

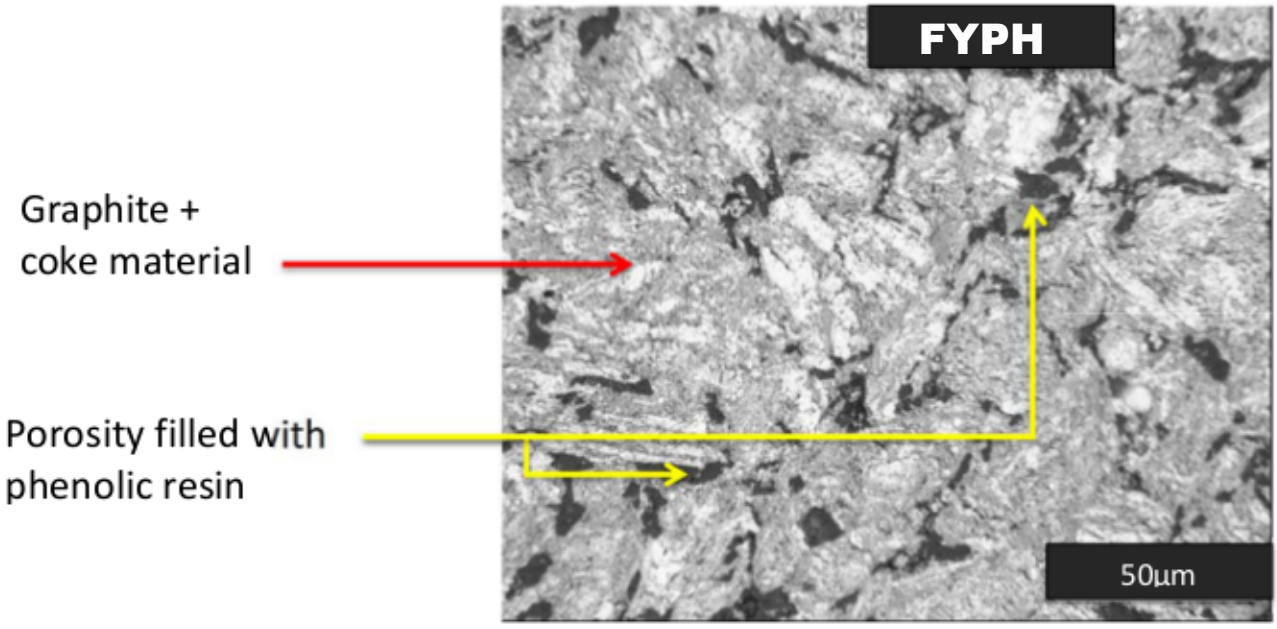


Operating Conditions	Remarks
Pressure	Up to 10barg (related to design adopted)
Temperature	Up to 200°C
Corrosive medias	Adapted to most common acid media (HCl, H2SO4, H3PO4, organic acid), solvents, oils and organics medias. Not adapted to oxidative media (HNO3, Cl2, and bases medias (pH >9). We study your operating conditions (concentration, temperature, pressure) for selection of our grade of material.
Cycling of temperature	Avoid cycling of temperature and thermal shock
Thermal conductivity	Good thermal conductivity

Physical properties	YPH
Graphite grain size (mm)	0.8-0.5
Impregnant type	PHENOLIC resin
Density	1.82
Flexural strength (MPa)	27.0
Compression strengt (MPa)	65.0
Young modulus (GPa)	9.0
Thermal conductivity (W/m.K)	105

GRAPHITE IMPREGNATED FYPH GRADE

Micrography of our impregnated graphite



Operating	Remark
Pressure	**Up to 20barg (related to design adopted)**
Temperature	**Up to 200°C (special treatment for 220°C)**
Corrosive medias	**Adapted to most common acid media (HCl, H2SO4, H3PO4, organic acid), solvents, oils and organic medias. Limited conditions to oxidative media(HNO3, Cl2 and base medias (pH>9)). We study your operating conditions (concentrations, temperature, pressure) for selection of our grade of material.**
Cycling of temperature	**Adapted to cycling of temperature and improved resistance to thermal shock**
Thermal conductivity	**Good Thermal conductivity**

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Physical properties	FYPH
Graphite grain size (mm)	0.043-0.009
Impregnant type	PHENOLIC resin
Density	1.89
Flexural strength (MPa)	43.0
Compression strengt (MPa)	88.0
Young modulus (GPa)	11.0
Thermal conductivity (W/m.K)	105

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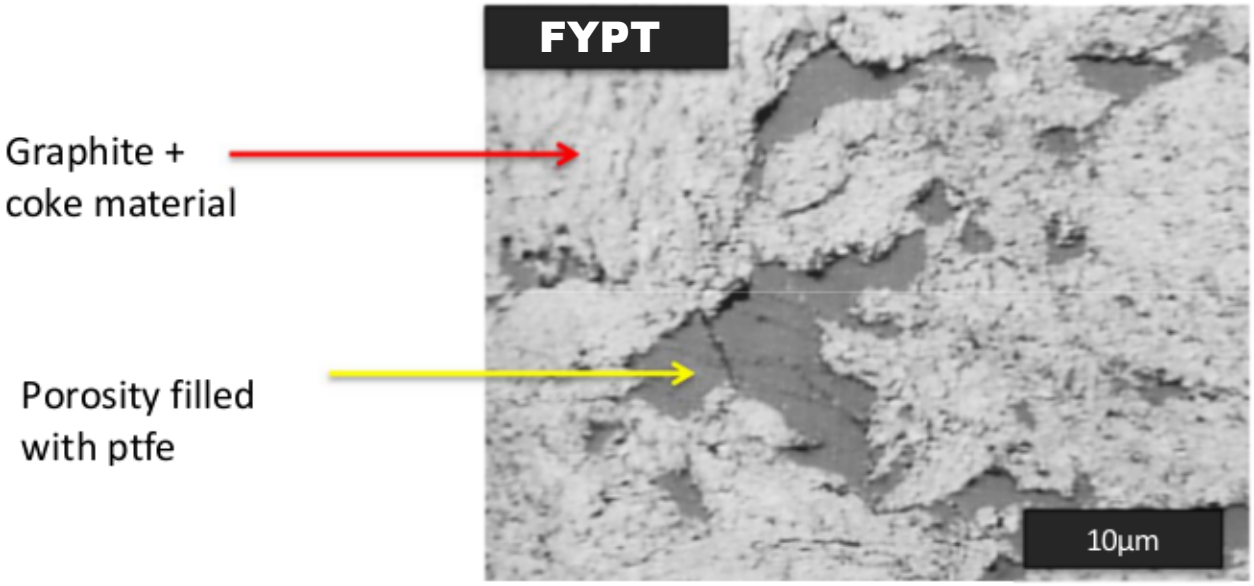
GRAPHITE IMPREGNATED FYPT GRADE

Micrography of our impregnated graphite



Operating	Remark
Pressure	**Up to 20barg (related to design adopted)**
Temperature	**Up to 250°C**
Corrosive medias	**Adapted to most common acid media (HCl, H2SO4, H3PO4, organic acid), solvents, oils and organics medias. Extended resistance to oxidative media (HNO3, Cl2, and bases medias (pH>9)). We study your operating conditions(concentration, temperature , pressue) for selection of our grade of material**
Cycling of temperature	**Adapted to cycling of temperature and good resistance**
Thermal conductivity	**Good thermal conductivity**

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Physical properties	FYPT
Graphite grain size (mm)	0.043-0.009
Impregnant type	PTFE resin
Density	1.92
Flexural strength (MPa)	35.0
Compression strengt (MPa)	72.0
Young modulus (GPa)	11.0
Thermal conductivity (W/m.K)	105

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SiC-coated Graphite
FYSiC

Physical properties (Graphite)	FYSiC
Graphite grain size (mm)	0.015
Forming technology	isostatic
Density	1.75
Flexural strength (MPa)	55.0
Compression strengt (MPa)	100.0
Young modulus (GPa)	9.8
Thermal conductivity (W/m.K)	90
electric Resistance(µΩm)	14
ash content (ppm)	10
hardness Rockwell HR5/40	4,6
tensile Strength (MPa)	32
thermal expension Coefficient(10^{-6}/K) α 20-200°C	100

Physical properties (SiC)	FYSiC
crystallite Size(mm)	0.001-0.020
Structure	β-SiC
Density	>3.18
porousness (%)	0
permeability (mbar x s^{-1})	<1 x 10^{-6}
Oxidationrate	ca. 4 x 10^{-6}mg/mm² x h
electric Resistance(µΩm)	ca.1500
concentration of unbound Silicon (%)	< 0.5
concentration of unbound carbon (%)	< 0.5

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