Zythane® 4070D

Thermoplastic Polyurethane Elastomer (Polyester)

Alliance Polymers & Services

Message:

Zythane 4070D is a polyester--based TPU specifically formulated for injection molding applications. It exhibits excellent abrasion resistance and toughness and has good hydrolytic stability, oil, fuel and solvent resistance. It is supplied uncolored in pellet form. Typical Application:

Zythane 4070D applications include among others shoe soles, ski and skate boot shells, other sporting goods, caster wheels, animal tags, good overmolded adhesion to certain EP (ex: PC, ABS, PMMA), couplings, gaskets and seals, tool handles, industrial parts, mobile phone cases, armrests, golf disks, mining screens.

WasherPower/other toolsIndustrial applicationSealsCar interior partsMobile phoneSporting goodsSporting goodsSorting socksVariableAppearanceColorlessProcessing MethodInjectior moldingPhysicalSpecific Gravity124Quernet Hardness (Shore D)70Variable Mail ValueInital ValueDurometer Hardness (Shore D)70Specific Gravity70Specific Gravity7070ChardnessShore D)70Specific Gravity70707172750Minial ValueMinial ValueMinial ValueMinial ValueMinial ValueSpecific Gravity750Minial ValueMinial Value<	General Information			
Fuel resistanceFuel resistanceSurficeOil resistanceGood toughnessHydrolysis stabilityUsesWheelsPower/other toolsIndustrial applicationSealsCarinterior partsMobile phoneSpring goodsPorterSpring goodsPorterProcessing MethodIndustrial applicationSpring goodsPorterProcessing MethodPorterProcessing MethodIndustrial applicationSpring goodsPorterProcessing MethodIndustrial applicationSpring goodsPorterProcessing MethodInternerPorterProfesProfesProfesInterner <td>Features</td> <td>Solvent resistance</td> <td></td> <td></td>	Features	Solvent resistance		
Ol resistanceSol doughnessHydrolysis stabilityUsesWeelsWasherPower/other toolsIndustrial applicationSealsCar interior partsSporting goodsForwarVotevarProcessing MethodPosefic GravityIpsteific Gravity <td></td> <td>Good wear resistance</td> <td></td> <td></td>		Good wear resistance		
Good toughness Hydrolysis stability Uses Whels Washer Power/other tools Industrial application Seals Car interior parts Mobile phone Sporting goods Fortwart Processing Method Parader Profestor Profestor Parader Profestor Profestor Sporting goods Fortwar Profestor Profestor Profestor Profestor Sporting Goods Fortwar Profestor Profestor Profestor Profestor Profestor Profestor Profestor Parader Profestor		Fuel resistance		
Hydrolysis stabilityUsesMelesWasherMasherPower/other toolsIndustrial applicationIndustrial applicationSealsCar interior partsMobile phoneSporting goodsSoporting goodsPortewareColorlessFormsParticleProcessing MethodI.24Nominal ValueUnitSpecific Gravity1.24Protematic S(Shore D)70Tadenasi S(Shore D)70Tadenasi S(Shore D)70TaberAbrasion Resistance75.0Nominal ValueUnitTaberAbrasion Resistance75.0Nominal ValueMariaAtmandanceSing MariaTaberAbrasion Resistance75.0Nominal ValueUnitTaberAbrasion ResistanceSing MariaSing MethodSing MethodTaberAbrasion ResistanceSing MariaTaberAbrasion ResistanceSing MariaSing MethodSing MethodTaberAbrasion ResistanceSing MariaSing MethodSing MariaSing MethodSing MariaTaberAbrasion ResistanceSing MariaSing MethodSing Maria <td rowspan="2"></td> <td>Oil resistance</td> <td></td> <td></td>		Oil resistance		
UsesMeelsWasherPower/other toolsIndustrial applicationSealsCar interior partsMobile phoneSporting goodsPotowerPotowerProcessing MethodInjection moldingPhysicalPhysicalSporting Joanna ValueQuernet HardnessSporting Joanna ValueDurometer HardnessRohenSporting Joanna ValueDurometer HardnessSporting Joanna ValueDurometer HardnessSporting Joanna ValueDurometer HardnessSporting Joanna ValueJoanna ValueDurometer HardnessSporting Joanna ValueJoanna Value		Good toughness		
WasherPower/other toolsIndustrial applicationSealsCar interior partsMobile phoneSporting goodsSporting goodsSorting socksVariableAppearanceColorlessProcessing MethodInjectior moldingPhysicalSpecific Gravity124Quernet Hardness (Shore D)70Variable Mail ValueInital ValueDurometer Hardness (Shore D)70Specific Gravity70Specific Gravity7070ChardnessShore D)70Specific Gravity70707172750Minial ValueMinial ValueMinial ValueMinial ValueMinial ValueSpecific Gravity750Minial ValueMinial Value<		Hydrolysis stability		
WasherPower/other toolsIndustrial applicationSealsCar interior partsMobile phoneSporting goodsSporting goodsSorting socksVariableAppearanceColorlessProcessing MethodInjectior moldingPhysicalSpecific Gravity124Quernet Hardness (Shore D)70Variable Mail ValueInital ValueDurometer Hardness (Shore D)70Specific Gravity70Specific Gravity7070ChardnessShore D)70Specific Gravity70707172750Minial ValueMinial ValueMinial ValueMinial ValueMinial ValueSpecific Gravity750Minial ValueMinial Value<				
Power/other tools Industrial applicationSeals Car interior parts Mobile phone 	Uses	Wheels		
Industrial applicationSealsCar interior partsMobile phoneSporting goodsFootwarProtessing MethodProtessing MethodInjection moldingPhysicalNominal ValueMoinal ValueMoinal ValueMoinal ValueIndernationSporting Softing ParticleSpecific Gravity1,24Moninal ValueMoninal		Washer		
SealsCar interior partsMobile phoneSporting goodsSporting goodsFotwearAppearanceColorlessFormsPartcleProcessing MethodInjection moldingPhysicalNominal ValueUnitantSporting GoodsSporting ConvolutionSpecific Gravity1-24Nominal ValueUnitantDurometer Hardness (Shore D)0Totant ValueMominal ValueUnitantSpecific Gravity01-2MenhanicalNominal ValueUnitantStat Di SpäticSpecific Gravity1-3Specific Gravity1-3Specific Gravity1-4Specific Gravity1-2Specific Gravity1-2Specific Gravity1-2Specific Gravity1-3Specific Gravity1-3Specific Gravity1-3Specific Gravity1-3Specific Gravity1-3Specific Gravity1-3Specific Gravity1-3Specific Gravity1-31-3Specific Gravity1-31-31-31-31-31-31-31-31-31-31-31-3<		Power/other tools		
Carinterior parts Mobile phone Sporting goods FotowearSporting goods Sporting goods FotowearAppearanceColoressFormsParticleProcessing MethodInjection moldingPhysicalNominal ValueMominal ValueUnitParterSporting ValueSporting GoodsInjectionSporting Gravity1.4Nominal ValueUnitParterStan D2240Durometer Hardness (Shore D)70Vortinal ValueUnitMominal ValueUnitAstm D2240Apasion - DIN50Batomers7.0Mominal ValueUnitDin SpisificTaise StromsNominal ValueUnitTest MethodSpisific StromsSim D1044Spisific StromsSim D1044Spisific StromsSim D1042StromsSim D242StromsSim D442		Industrial application		
Mobile phone Sporting goods FootwerrAppearanceColorlessFormsParticleProcessing MethodInitNominal ValueUnitSpedific Gravity1.24Nominal ValueUnitDrometer Hardness (Shore D)7Vorminal ValueUnitMominal ValueUnitSpedific Gravity5.0Mominal ValueUnitDrometer Hardness (Shore D)7.0Spedific Gravity5.0Mominal ValueUnitStedhologi5.0Mominal ValueUnitTest MethodSpedific Gravity5.0Mominal ValueUnitStedhologiStal DiotedTest MethodStal DiotedSpedific GravityStal DiotedSpecific GravityStal Dioted		Seals		
Sporting goods FotwearAppearanceColorlessFormsParticleProcessing MethodInjection moldingPhysicalNominal ValueNominal ValueOnitSpecific Gravity1.24Nominal ValueUnitDurometer Hardness (Shore D)7SpecificationNominal ValueMechanicalNominal ValueNominal ValueUnitBechanicalNominal ValueMominal ValueUnitSpecificationSoftAst M Diperimeter Hardness (Shore D)5.0Marken Marken MarkenInitAst M Diperimeter Hardness (Shore D)5.0Marken Marken Marke		Car interior parts		
FotwerAppearaceColressFormsPatcleProcessing MethodIgeton moldingPhysicalNominal ValueUnitSpecific Gravity1.24GravitaMominal ValueUnitTest MethodBurometer Hardness (Shore D)0VitAfschanization5.0mailAfschanization5.0mailAbrasion - DIN65mailAfschanizationNominal ValueUnitAfschanization5.0mailAfschanization5.0mailAfschanization5.0mailAfschanization5.0mailAfschanizationMominal ValueUnitAfschanizationMominal ValueMailAfschanization5.0mailMailAfschanizationSolini ValueMailAfschanizationForminal ValueMailAfschanizationSolini ValueMailAfschanization </td <td>Mobile phone</td> <td></td> <td></td>		Mobile phone		
AppearanceColorlessFormsParticleProcessing MethodInjection moldingPhysicalNominal ValueUnitSpecific Gravity1.24g/cm³Nominal ValueUnitTest MethodDurometer Hardness (Shore D)70Test MethodMechanicalNominal ValueUnitTest MethodApsrino PDIN5.0mg³ASTM D1044Abrasion - DIN65mm³DIN 53516EastomersNominal ValueUnitTest MethodTest MethodInitASTM D1044Astro PDIN65mm³ASTM D1044EastomersNominal ValueUnitTest MethodTest MethodInitTest MethodMethodAstro PDIN65mm³ASTM D1044Test MethodInitTest MethodFersie StressYominal ValueInitTest Method		Sporting goods		
FormsParticleProcessing MethodInjection moldingPhysicalNominal ValueUnitSpecific Gravity1.24g/cm³Nominal ValueUnitTest MethodDurometer Hardness (Shore D)70Test MethodMechanicalNominal ValueUnitTest MethodTaber Abrasion Resistance75.0mgASTM D1044Abrasion - DIN65mm³DIN 53516ElastomersNominal ValueUnitTest MethodTaber StressStrip DataKominal ValueKominal Value		Footwear		
FormsParticleProcessing MethodInjection moldingPhysicalNominal ValueUnitSpecific Gravity1.24g/cm³Nominal ValueUnitTest MethodDurometer Hardness (Shore D)70Test MethodMechanicalNominal ValueUnitTest MethodTaber Abrasion Resistance75.0mgASTM D1044Abrasion - DIN65mm³DIN 53516ElastomersNominal ValueUnitTest MethodTaber StressStrip DataKominal ValueKominal Value				
Processing MethodInjection moldingPhysicalNominal ValueUnitTest MethodSpecific Gravity1.24g/cm³ASTM D792HardnessNominal ValueUnitTest MethodDurometer Hardness (Shore D)70ASTM D2240MechanicalNominal ValueUnitTest MethodTaber Abrasion Resistance75.0mgASTM D1044Abrasion - DIN65mm³DIN 53516ElastomersNominal ValueUnitTest MethodFerst Elstress	Appearance	Colorless		
PhysicalNominal ValueUnitTest MethodSpecific Gravity1.24g/cm³ASTM D792HardnessNominal ValueUnitTest MethodDurometer Hardness (Shore D)70STM D2240MechanicalNominal ValueUnitTest MethodTaber Abrasion Resistance75.0mgASTM D1044ElastomersNominal ValueUnitTest MethodElastomersNominal ValueUnitTest MethodFirst StressSTM D104STM D1044	Forms	Particle		
Specific Gravity1.24g/cm³ASTM D792HardnessNominal ValueUnitTest MethodDurometer Hardness (Shore D)70ASTM D2240MechanicalNominal ValueUnitTest MethodTaber Abrasion Resistance75.0mgASTM D1044Abrasion - DIN65mm³DIN 53516ElastomersNominal ValueUnitTest MethodTest MethodSTM D1044DIN 53516	Processing Method	Injection molding		
HardnessNominal ValueUnitTest MethodDurometer Hardness (Shore D)70ASTM D2240MechanicalNominal ValueUnitTest MethodTaber Abrasion Resistance75.0mgASTM D1044Abrasion - DIN65mm³DIN 53516ElastomersNominal ValueUnitTest MethodTensile StressStressASTM D412	Physical	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D)70ASTM D2240MechanicalNominal ValueUnitTest MethodTaber Abrasion Resistance75.0mgASTM D1044Abrasion - DIN65mm³DIN 53516ElastomersNominal ValueUnitTest MethodTensile Stress	Specific Gravity	1.24	g/cm³	ASTM D792
MechanicalNominal ValueUnitTest MethodTaber Abrasion Resistance75.0mgASTM D1044Abrasion - DIN65mm³DIN 53516ElastomersNominal ValueUnitTest MethodTensile Stress	Hardness	Nominal Value	Unit	Test Method
Taber Abrasion Resistance75.0mgASTM D1044Abrasion - DIN65mm³DIN 53516ElastomersNominal ValueUnitTest MethodTensile Stress	Durometer Hardness (Shore D)	70		ASTM D2240
Abrasion - DIN 65 mm ³ DIN 53516 Elastomers Nominal Value Unit Test Method Tensile Stress STM D412	Mechanical	Nominal Value	Unit	Test Method
Elastomers Nominal Value Unit Test Method Tensile Stress ASTM D412	Taber Abrasion Resistance	75.0	mg	ASTM D1044
Tensile Stress ASTM D412	Abrasion - DIN	65	mm³	DIN 53516
	Elastomers	Nominal Value	Unit	Test Method
100% strain 30.0 MPa ASTM D412	Tensile Stress			ASTM D412
	100% strain	30.0	MPa	ASTM D412

300% strain	40.0	MPa	ASTM D412
Tensile Strength (Break)	43.0	MPa	ASTM D412
Tensile Elongation (Break)	280	%	ASTM D412
Tear Strength ¹	226	kN/m	ASTM D624
Compression Set			ASTM D395B
24°C, 22 hr	45	%	ASTM D395B
70°C, 72 hr	80	%	ASTM D395B
Thermal	Nominal Value	Unit	Test Method
Brittleness Temperature	0.00	°C	DSC
Vicat Softening Temperature	168	°C	ASTM D1525
Flammability	Nominal Value		Test Method
Flame Rating			UL 94
1.00 mm	НВ		UL 94
1.50 mm	НВ		UL 94
3.00 mm	НВ		UL 94
Injection	Nominal Value	Unit	
Drying Temperature	90.0	°C	
Drying Time	4.0	hr	
Rear Temperature	210	°C	
Middle Temperature	220	°C	
Front Temperature	230	°C	
Nozzle Temperature	235 - 240	°C	
Processing (Melt) Temp	230 - 240	°C	
Mold Temperature	45.0 - 90.0	°C	
Back Pressure	0.600 - 1.40	MPa	
Screw Speed	60 - 200	rpm	
Clamp Tonnage	5.5 - 9.7	kN/cm²	
Injection instructions			
Injection Speed: >.4 in/sec			
NOTE			
1.	C mould		

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection. All rights belong to the original authors. If any infringement occurs, please contact us immediately.

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519 Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

