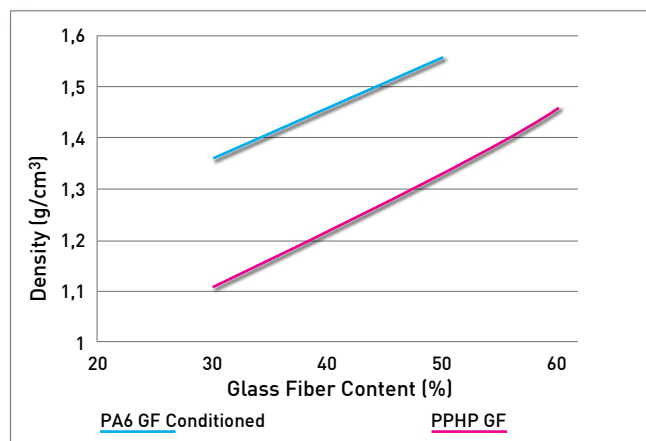
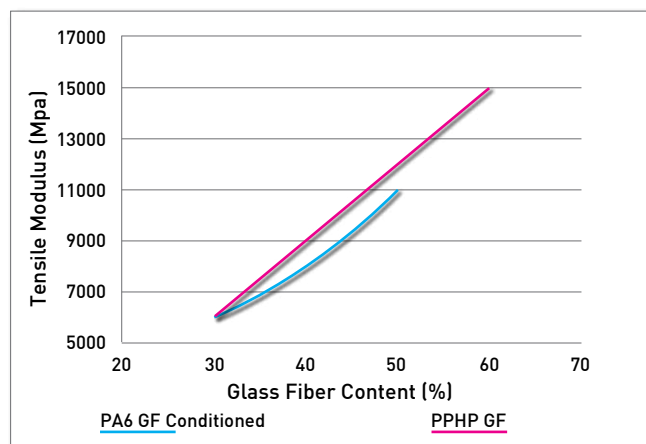
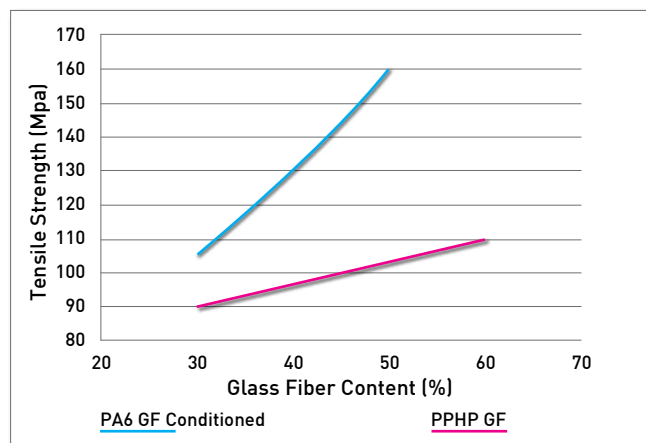
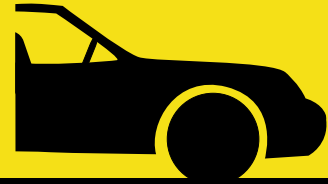


## PPHP GF60

Despite the fact that Polyamide 6 is well known both for its mechanical strength and elevated temperature resistance; it is prone to absorb moisture which will lower both tensile strength and tensile modulus of the material. Therefore designers cannot use dry as molded mechanical property values in their calculations if the application will work in moist environment or has a direct water contact.

Tecolen<sup>®</sup> HP10 GR60 NL (PPHP, 60% Glass fiber reinforced), thanks to hydrophobic nature of polypropylene, will not absorb moisture. Thus parts made from Tecolen<sup>®</sup> HP10 GR60 NL will have the same mechanical properties either in a moist environment or in a direct water contact application. The grade has the tensile modulus of 15000 MPa which is fairly high against conditioned PA6 GF50's tensile modulus of 11000 MPa, which enables to replace PA6 GF50 applications where the part will work in room temperatures. Moreover this grade has the price advantage both with the density of 1.46 g/cm<sup>3</sup>, which is 6% lower than PA6 GF50 grades, and also with a lower raw material cost.

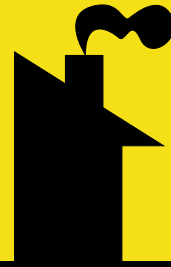




## NB40 HF85 MT112 EC 0B



Light of metals and easy processing of thermoplastics are combined with Tecomid® NB40 HF85 MT112 EC 0B (PA6, 85% Metal Filled, Electric & Thermal Conductive) in a unique way. Tecomid® NB40 HF85 MT112 EC 0B has the density of 4.5 g/cm<sup>3</sup> which will give the part vibration and sound dampening properties along with static dissipative feature due to grade's surface resistance value of 10<sup>7</sup>-10<sup>8</sup>Ω. This grade is capable of replacing metal applications where metal is used for its weight. Unlike the parts made from metals, parts made from Tecomid® NB40 HF85 MT112 EC 0B will not require any kind of secondary operations. Moreover they will be inherently corrosion free. This high density grade can be used for less lethal or training bullets, sport equipment balancing weights, sport equipment weights, inertia disks, golf club heads, fishing weights, acoustic isolation panels, headphone body, and vibration damping panels.



## Bearing Pulley for Buses

After making trials with various suppliers different grades including carbon fiber reinforced, glass bead reinforced and many more; ABA Automotive finally finds its solution with Tecoform® P030 AR15 NL HS (POM Copolymer, 15% Aramid Fiber Reinforced, Heat Stabilized, Natural) for molding bearing pulleys of ISUZU buses. As the application demands Tecoform® P030 AR15 NL HS has very high wear resistance without lowering its coefficient of friction. Also unlike glass fibers, aramid fibers will not wear the opposing part. Furthermore heat stabilization of Tecoform® P030 AR15 NL HS will protect the part from heat during part's life span.



## Glass Housing of Automatic Window Mechanism

Kar Plastic, a leading automotive industry manufacturer, replaced Hostaform C 9021 with our Tecoform® P020 NL RT 0D (POM Copolymer, PTFE Modified, Natural) for molding glass housing of automatic window mechanism of FIAT automobiles. Great wear performance of POM is further enhanced with PTFE modification. Therefore parts made from Tecoform® P020 NL RT 0D will have excellent wear performance. Further advantage of PTFE modification is lowering the coefficient of friction of the base material which in this case will mean protecting glass from scratching.







## Body of Blank Firing Pistol

Tecoflex® TU40 GR30 BK014 HS (TPU, 30% Glass Fiber Reinforced, Heat Stabilized, Black) is developed for molding body and handle of blank firing pistol. Soft touch and flexibility features of thermoplastic polyurethane are coupled with glass fiber reinforcement which gives the grade's tensile modulus of 2550 MPa. Additionally the grade's notched izod impact resistance at 23°C is 40kJ/m<sup>2</sup>, which will give required impact performance.



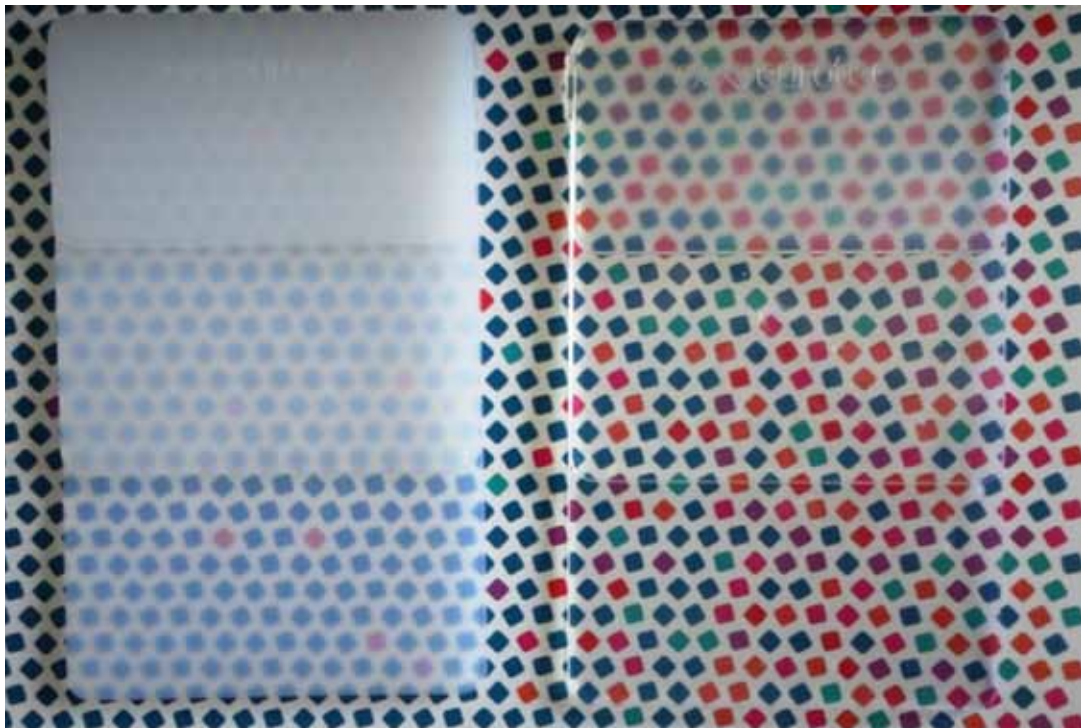
## Permanent ESD Transparent Polyethylene for ESD Air Bubble Packaging and Packaging

Tecolen® OE10 RD018 EC 0B (LDPE, Electric Conductive, Red) is approved by Arçelik/Beko, a global manufacturer of home appliances, for making air bubble packaging and packaging applications. Tecolen® OE10 RD018 EC 0B has the permanent surface resistivity of 10<sup>9</sup> Ω which gives electro static dissipative feature and similar mechanical properties of a standard LPDE. Moreover it is transparent! These packages will be used in electronic card packaging which will enable Arçelik/Beko to deliver their electronic cards without the risk of static discharge failure.





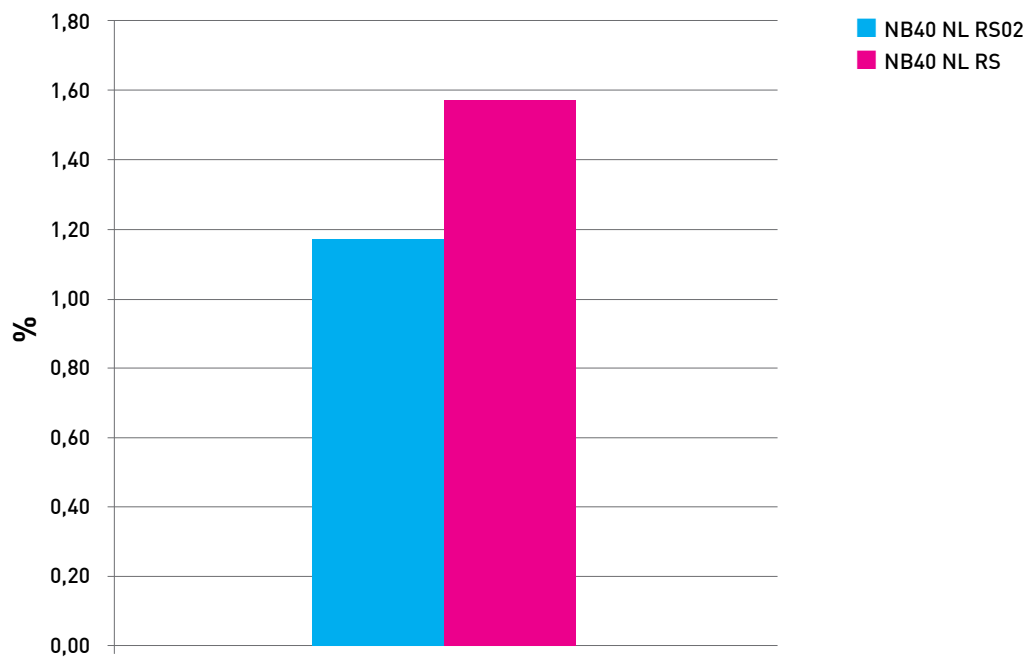
## Transparent Polyamide



Tecomid® NB40 NL RS02 (PA6, Unfilled, Improved Surface, Transparent) is new developed grade for applications where transparency is needed. Transparent up to 2mm thickness, Tecomid® NB40 NL RS02 offers excellent dimensional stability. Due to grade's amorphous nature, mold shrinkage of the grade is in the range of 0.5% which is similar to other amorphous materials. Moreover as can be seen from table below, moisture absorption is 25% lower than a standard grade of polyamide 6. Lower moisture absorption of Tecomid® NB40 NL RS02 enables great chemical resistance performance. Tecomid® NB40 NL RS02 has the density value of 1.13 g/cm<sup>3</sup> which enables molders to make their transparent applications lighter than using PC or PET grades. As a result Tecomid® NB40 NL RS02 is developed for applications where both chemical resistance, mechanical strength of polyamide and dimensional stability, transparency of amorphous thermoplastic polymers are needed.



## Moisture Absorption at 23 °C 24h



Properties (Dry as Molded)	Unit	Standard	Condition	NB40 NL RS02 Transparent PA6	NB40 NL E PA6
Stress at Break	Mpa	ISO 527	5 mm/sn	70	80
Stress at Break	%	ISO 527	5 mm/sn	>50	>50
Tensile Modulus	MPa	ISO 527	5 mm/sn	2500	3000
Izod Impact, notched	kl/m <sup>2</sup>	ISO 180/1A	+23 °C	6	6
			-30 °C	5	5
Density	g/cm <sup>3</sup>	ISO 1183	+23 °C	1,13	1,13
HDT	°C	ISO 75-1/2	1.8 MPa	50	65





## Chemical Resistance

