





## نانو كامپوزيتهاى پليمرى

دکتر فرزانه طباطبائی کارشناس ارشد واحد تحقیق و توسعه شرکت شمیم پلیمر کوثر

سهشنبه ۲۷ آبان ماه ۱۳۹۹



#### سرفصلها

1 معرفی شرکت

2 معرفی محصولات

3 ارتباط محصولات با فناورى نانو

4 فرصتهای همکاری تحقیقاتی

5 اطلاعات تماس و ارتباط با شرکت



#### ۱- معرفی شرکت



تولیدکننده پلیمرهای مهندسی و تقویتشده

سال تأسيس: ۱۳۸۶

شرکت شمیم پلیمر کوثر



ISO 9001:2015











IATF16949:2016

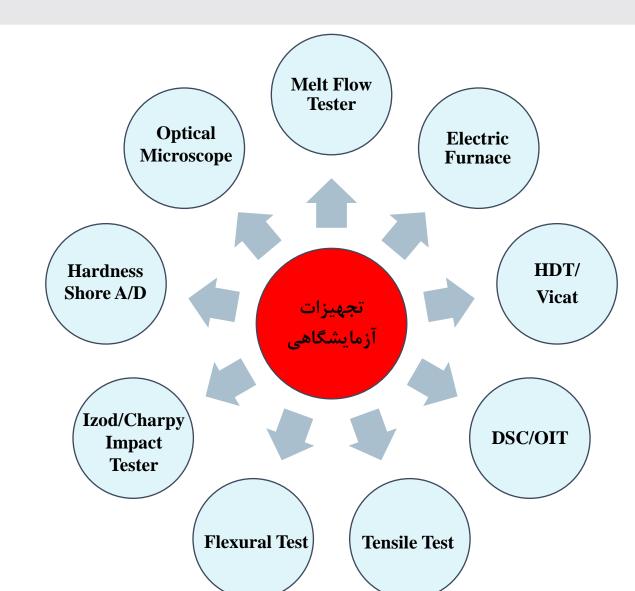
ISO 14001:2015 OHSAS 18001:2008 ISO 10002:2004



## ۱- معرفی شرکت















## ۲- معرفی محصولات



- 1 SHAMIM BLEND
- 2 SHAMIM NANO BLEND

3 SHAMIM SPECIAL BLEND



## ٢- معرفي محصولات



## 1 SHAMIM BLEND

- **Mineral Filled Plastics**
- Glass Fiber Reinforced Plastics
- **\***Toughened Plastics
- **Toughed Filled Plastics**
- **Thermoplastic Elastomers**



#### SHAMIM BLEND

## ۲- معرفی محصولات



No.	Grade	Special Property	Features
1	PP20TD-H	3-25 g/10min	Talc filled Homopolymer, good stiffness, Heat and UV stabilized, Black in color or natural, injection molding grade
2	PP30TD-H	3-25 g/10min	Talc filled Homopolymer, good stiffness, Heat and UV stabilized, Black in color or natural, injection molding grade
3	PP40TD-H	3-18 g/10min	Talc filled Homopolymer, High stiffness, High heat resistance, Heat and UV stabilized, Black in color or natural, injection molding grade
4	PP20TD-C	4-25 g/10min	Talc filled Copolymer, Heat and UV stabilized, good stiffness, high impact resistance, Black in color or natural, extrusion and injection molding grade
5	PP30TD-C	3-25 g/10min	Talc filled Copolymer, Heat and UV stabilized, good stiffness, high impact resistance, Black in color or natural, extrusion and injection molding grade
6	PP40TD-C	3-15 g/10min	Talc filled Copolymer, Heat and UV stabilized, good stiffness, good impact resistance, Black in color or natural, extrusion and injection molding grade
7	PP80CC	10-75 wt.%	High filled calcium carbonate polypropylene, injection molding , Extrusion and film blowing grade
8	PE80CC	10-80 wt.%	High filled calcium carbonate polyethylene, injection molding , Extrusion and film blowing grade
9	PP20GF-H	2-10 g/10min	Glass fiber reinforced Homopolymer, High impact resistance, high stiffness, Heat and UV stabilized, Black in color or natural, injection molding grade
10	PP30GF-H	2-7 g/10min	Glass fiber reinforced Homopolymer, High impact resistance, high stiffness, Heat and UV stabilized, high heat resistance, Black in color or natural, injection molding grade
11	PP40GF-H	2-6 g/10min	Glass fiber reinforced Homopolymer, High impact resistance, high stiffness, Heat and UV stabilized, high heat resistance, Black in color or natural, injection molding grade
12	PP20GF-C	2-10 g/10min	Glass fiber reinforced copolymer, High impact resistance, high stiffness, Heat and UV stabilized, Black in color or natural, injection molding grade

#### SHAMIM BLEND

## ۲- معرفی محصولات



No.	Grade	Special Property	Features
13	PP30GF-C	2-7 g/10min	Glass fiber reinforced copolymer, High impact resistance, high stiffness, Heat and UV stabilized, high heat resistance, Black in color or natural, injection molding grade
14	PP40GF-C	2-6 g/10min	Glass fiber reinforced copolymer, High impact resistance, high stiffness, Heat and UV stabilized, high heat resistance, Black in color or natural, injection molding grade
15	PP-EPDM	5-15 g/10min	Copolymer, Heat and UV stabilized, High impact resistance in low temperatures, Black in color or natural, injection molding grade, exterior and interior applications such as bumper
16	PP-EPDM-20TD	5-25 g/10min	Copolymer, Heat and UV stabilized, High impact resistance, good stiffness, Black or self-colored, injection molding grade, interior applications such as dashboard and door trims
16	PP-EPDM-25TD	5-25 g/10min	Copolymer, Heat and UV stabilized, High impact resistance, good stiffness, Black or self-colored, injection molding grade, interior applications such as dashboard and door trims
18	TPV/TPE	35-95 shore D	High content elastomeric compound, Heat and UV stabilized, High impact resistance, Black or self-colored, injection molding and blow molding grade, exterior applications
19	PA6/66-GF20	Izod Impact >15 kJ/m² Tensile Strength > 105 MPa	Glass fiber reinforced, High impact resistance, High modulus and tensile strength, Heat and UV stabilized, high heat resistance, Black in color or natural, injection molding grade
20	PA6/66-GF30	Izod Impact >18 kJ/m² Tensile Strength > 145 MPa	Glass fiber reinforced, High impact resistance, High modulus and tensile strength, Heat and UV stabilized, high heat resistance, Black in color or natural, injection molding grade
21	PA6/66-GF40	Izod Impact >25 kJ/m² Tensile Strength > 165 MPa	Glass fiber reinforced, High impact resistance, High modulus and tensile strength, Heat and UV stabilized, high heat resistance, Black in color or natural, injection molding grade
22	HDPE	Elongation > 700%	High ESCR resistance, OIT more than 100 hr., Geo-membrane and cable insulation
23	Black Master-batch	40±3 %	General purpose applications
24	Black Master-batch	40±3 %	Suitable for pipe and geo-membrane products



## SHAMIM NANO BLEND

## ۲- معرفی محصولات



No.	Grade	Features
1	Nano modified-PP	Impact and mechanical properties modification of PP using Nano-particles
2	Nano modified-PA	Improved mechanical properties
3	Nano modified PP20% Mineral	20% filled PP, modification in mechanical, impact and thermal properties, and dimensional stability for air condition (A/C) parts
4	Nano modified PP-EPDM	High shrinkage nano-blend using nano-particles; accelerated in crystallinity, dimensional stability; applied in automotive bumper
5	Nano modified PP-EPDM	Improvement of bumper paint-ability using addition promoters binding; surface modifier nano-blend
6	Nano modified Hydrophilic PP	High hydrophibicity, Low water contact angle



## ۲- معرفی محصولات



#### 3

#### SHAMIM SPECIAL BLEND

- **Antimicrobial Master-batches and Compounds**
- **Flame-Retardant Compounds**
- Slip and Anti-block Agent Master-batches
- **Antioxidant and Anti-UV Master-batches**
- **Anti-fog Master-batches**
- **Processing Aid Master-batches**
- **❖** Impact and Tensile Modifier
- **Compatibilizers and Coupling Modifiers**
- **Carbon Black Master-batches**
- Color Master-batches

### ۳- ارتباط محصولات با فناوری نانو





#### **PP** without Nanoparticles

#### **Defects for used material:**

- **Deformation**
- \*Brittleness

#### **After Nano-modification of PP**

- **Dimensional Stability**
- **❖**Improvement of HDT
- **❖** Improvement of Mechanical Properties
  - Tensile Stress
  - Tensile Modulus
- **❖** Improvement of Impact Strength



### ۴- فرصتهای همکاری تحقیقاتی

۱- قابلیت همکاری با پروژههای مرتبط با صنعت و دانشگاه

۲- آمادگی برای حمایتهای مالی و آزمایشگاهی از پروژههای دانشجویی متناسب با فعالیت شرکت

۳- تعامل با شرکتهای تولیدکننده برای جایگزینی گریدهای وارداتی از طریق مهندسی معکوس

### $\Delta$ اطلاعات تماس و ارتباط با شرکت





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# با تشكر از توجه شما