

**Engineered Polymer Products**  
**MATERIAL SAFETY DATA SHEET**  
**DURAGRIP® MELT-PROCESSIBLE ELASTOMER – NON-BLACK GRADES**

**Revised June 25, 2007**

**1. MATERIAL/COMPANY IDENTIFICATION**

**Material Identification**

"DuraGrip" is a registered trademark of Advanced Polymer Alloys.

**Trade Names and Synonyms**

- "DuraGrip" DGR 6030NC, DGR 6040NC, DGR 6050NC, DGR 6060NC, DGR 6070NC, DGR 6080NC, DGR 6090NC
- "DuraGrip" DGR 6030NCFDA, DGR 6040NCFDA, DGR 6050NCFDA, DGR 6060NCFDA, DGR 6070NCFDA, DGR 6080NCFDA
- "DuraGrip" DGR 6085WTUV
- "DuraGrip" DGR 6130TR, DGR 6140TR, DGR 6140NC, DGR 6150NC, DGR 6160NC, DGR 6170NC, DGR 6180NC
- "DuraGrip" DGR 6210TR, DGR 6220TR, DGR 6230TR (DGX 7277), DGR 6240NC, DGR 6240TR, DGR 6250NC, DGR 6260TR, DGR 6260NC, DGR 6270NC
- "DuraGrip" (FDA Compliant Ingredients) DGR 6830NC, DGR 6840NC, DGR 6850NC, DGR 6860NC, DGR 6870NC
- "DuraGrip" DGX 6220CL, DGX 6230CL, DGX 6240CL, DGX 6250CL, DGX 6260CL, DGX 6270CL, DGX 6280CL, DGX 6290CL
- "DuraGrip" DGR 6350NC, DGR 6360NC, DGR 6370NC, DGR 6380NC
- "DuraGrip" DGR 6440NC, DGR 6450NC, DGR 6460NC, DGR 6470NC, DGR 6480NC, DGR 6490NC
- "DuraGrip" DGX 7194, DGX 7278, DGX 7281, DGX 7282, DGX 7286, DGX 7287, DGX 7455, DGX 7456, DGX 7457, DGX 7458, DGX 7459, DGX 7502
- "DuraGrip" DGX 7600, DGX 7601, DGX 7602, DGX 7603, DGX 7604, DGX 7632, DGX 7633, DGX 7634, DGX 7636, DGX 7644, DGX 7645, DGX 7648, DGX 7649, DGX 7650, DGX 7651, DGX 7652, DGX 7671, DGX 7689, DGX 7691, DGX 7692, DGX 7693, DGX 7694, DGX 7695, DGX 7696, DGX 7697, DGX 7698, DGX 7699
- "DuraGrip" DGX 7700, DGX 7701, DGX 7704

**Company Identification**

Manufacturer/Distributor

Engineered Polymer Products  
 Specialty Polymer Materials Group  
 Ferro Corporation  
 400-A Maple Avenue  
 Carpentersville, IL 60110-0729

**Telephone Number**

**Product Information: 1-888-663-6005**  
**1-847-426-3350 (outside U.S.)**

Engineered Polymer Products  
MATERIAL SAFETY DATA SHEET  
DURAGRIP<sup>®</sup> MELT-PROCESSIBLE ELASTOMER – NON-BLACK GRADES

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## 2. COMPOSITION/INFORMATION ON INGREDIENTS

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### Components

<u>Material</u>	<u>CAS Number</u>	<u>%</u>
Styrene-Ethylene/Butylene Styrene thermoplastic elastomer-based compositions	Not Applicable	100

### Components (Remarks)

DuraGrip<sup>®</sup> thermoplastic rubber grades are proprietary formulated products. Their formulations are trade secrets. These multi-ingredient products cannot be identified by a CAS number. However, all components of these products appear on the Inventory of Chemical Substances published by the U.S. Environmental Protection Agency or qualify for the TSCA polymer exemption under U.S. Federal Register Vol. 60, No. 60, March 29, 1995. This material is not known to contain Toxic Chemicals pursuant to Title III, §313 of the Superfund Amendments and Reauthorization Act of 1986 and 40 C.F.R., part 372.

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## 3. HAZARDS IDENTIFICATION

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Before using this product, read the "Safe Handling Guide" for DuraGrip Melt Processible Elastomer.

### Safety Hazards:

**Pellet Spills:** Pellet spills can be a slipping hazard, especially on smooth floors.

### Human Health Hazards:

#### Contact with Molten Product/Degradation/Combustion Vapors:

Contact of molten polymer with any human tissue will result in thermal burns.

Vapors generated in polymer degradation will contain volatile compounding components which may cause temporary eye and respiratory irritation.

Vapors generated in the combustion of the polymer will contain carbon dioxide and can contain toxic chemicals, such as carbon monoxide. Fire fighters should wear self-contained breathing apparatus. All unprotected personnel should leave the area.

#### Chronic Effects:

None are known.

#### Medical Conditions Aggravated By Exposure:

None are known.

#### Carcinogenicity:

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

### Environmental Hazards:

None are known.

Engineered Polymer Products  
MATERIAL SAFETY DATA SHEET  
DURAGRIP<sup>®</sup> MELT-PROCESSIBLE ELASTOMER – NON-BLACK GRADES

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#### 4. FIRST AID MEASURES

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##### First Aid

###### Inhalation:

If vapors from the degradation or combustion of the product are inhaled, remove personnel to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Obtain professional medical attention.

###### Skin Contact:

In case of contact, immediately wash skin with soap and water. Wash contaminated clothing before reuse. If molten material gets on skin, cool rapidly with cold water. Do not attempt to remove material from skin. Obtain medical treatment for thermal burn.

###### Eye Contact:

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

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#### 5. FIRE FIGHTING MEASURES

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##### Flammable Properties

**Flash Ignition Temperature:** No data available, but > 249°C (480°F).

**Fire and Explosion Hazards:** The solid polymer can only be combusted with difficulty. No explosion hazard.

##### Hazardous Combustion Products:

Complete combustion yields carbon dioxide and water. Incomplete combustion /thermal degradation may additionally generate carbon monoxide, simple hydrocarbons and hydrocarbon oxidation products including acrolein, aldehydes and ketones.

##### Extinguishing Media:

Water spray or fog (avoid strong water stream which may spread fire) for all types of fires. Foam, Dry Chemical, CO<sub>2</sub> for small fires only..

##### Fire Fighting Instructions

Use self-contained breathing apparatus and protective clothing to avoid exposure to hydrogen chloride and toxic combustion vapors.

Engineered Polymer Products  
MATERIAL SAFETY DATA SHEET  
DURAGRIP<sup>®</sup> MELT-PROCESSIBLE ELASTOMER – NON-BLACK GRADES

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## 6. ACCIDENTAL RELEASE MEASURES

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### Safeguards (Personnel)

NOTE: Review FIRE FIGHTING MEASURES (5) and Handling (Personnel) (7) sections before proceeding with clean-up. Use appropriate Personal Protective Equipment during clean-up.

**Spill Clean-Up:** Sweep or vacuum up to avoid slipping hazard. Follow disposal recommendations

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## 7. HANDLING AND STORAGE

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**Handling (Personnel):** See FIRST AID (4) and Personal Protective Equipment (8) Sections.

**Storage:** Store products in a cool, dry, well-ventilated place. Avoid storage locations in direct sunlight or near other heat sources, such as operating machinery or heating units. Keep containers tightly closed to prevent moisture absorption and contamination.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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### Engineering Controls:

#### Ventilation:

Use sufficient local ventilation over hot processing equipment to keep employee exposure to fumes below suggested limits of MEL/TWA (8hr) = 0.6 mg/m<sup>3</sup>

### Personal Protective Equipment

**Eye/Face Protection:** Wear approved safety glasses.

**Respirators:** Where there is potential for airborne exposures in excess of applicable limits, wear NIOSH/MSHA approved respiratory protection.

**Skin Protection:** Wear protective gloves to avoid burns from hot/molten polymer and to minimize skin contact. Follow good hygiene practices - wash hands thoroughly after handling products.

### Exposure Guidelines

#### Exposure Limits

"DuraGrip" Melt Processible Elastomer - All In Synonym List in Section 1

PEL (OSHA) : None Established

TLV (ACGIH) : None Established

Engineered Polymer Products  
MATERIAL SAFETY DATA SHEET  
DURAGRIP<sup>®</sup> MELT-PROCESSIBLE ELASTOMER – NON-BLACK GRADES

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**9. PHYSICAL AND CHEMICAL PROPERTIES**

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**Physical Data**

Melting Point	: Not Applicable
Volatiles	: Not Applicable
Solubility in Water	: Negligible
Odor	: Very Mild
Form	: Pellets
Specific Gravity Range	: 0.9 to 1.5

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**10. STABILITY AND REACTIVITY**

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**Chemical Stability:**

Stable at normal ambient temperatures and storage conditions. Oxidizes exothermically at elevated temperatures.

**Conditions to Avoid:**

Rapid heating to temperatures above 280°C (536°F) or prolonged (days) exposure to temperatures above 90°C (194°F) will result in polymer degradation and possible auto-ignition.

**Incompatibility with Other Materials**

**MATERIALS TO AVOID:** Oxidizing agents.

**Decomposition**

**HAZARDOUS DECOMPOSITION PRODUCTS:** Carbon monoxide, and hydrocarbon oxidation products including organic acids, aldehydes, and alcohols.

**Polymerization:** Polymerization will not occur.

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**11. TOXICOLOGICAL INFORMATION**

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Specific data have not been obtained for all grades. Based on similarities of ingredients, all grades can be expected to conform to the following generalities:

**Acute Toxicity – Oral:**

ALD > 5,000 mg/kg. of body weight, as tested in rats. Ingestion is not a probable route to toxic exposure.

**Acute Toxicity – Dermal:** ALD > 5,000 mg/kg of body weight.

**Acute Toxicity – Inhalation:** N/A. - Pellets cannot be inhaled.

Engineered Polymer Products  
MATERIAL SAFETY DATA SHEET  
DURAGRIP<sup>®</sup> MELT-PROCESSIBLE ELASTOMER – NON-BLACK GRADES

**Skin Irritation:** Tests on rabbits indicated the product is not a skin irritant.

**Eye Irritation:** Tests on rabbits indicated only mechanical eye irritation.

**Mutagenicity:** Product is not considered to be a mutagenic hazard.

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## 12. ECOLOGICAL INFORMATION

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### Eco-toxicological Information

**Aquatic Toxicity:** No information is available. Toxicity is expected to be low, based on insolubility in water.

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## 13. DISPOSAL CONSIDERATIONS

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### Waste Disposal

Preferred options for disposal are:

- (1) recycling,
- (2) incineration with energy recovery, and
- (3) landfill.

The high fuel value of this product makes option 2 very desirable for material that cannot be recycled, but incinerator must be capable of scrubbing out acidic combustion products. Treatment, storage, transportation, and disposal must be in accordance with applicable federal, state/provincial, and local regulations.

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## 14. TRANSPORT INFORMATION

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### US Department of Transportation Classification:

This material is not subject to DOT Regulations pursuant to 49 C.F.R., parts 171-180.

### International Air Transportation Association Classification:

This material is not classified as hazardous under IATA regulations.

### International Maritime Organization - IMDG:

This material is not classified as hazardous under IMDG regulations.

### UN, IMO, ADR/RID, ICAO Code:

This material is not dangerous for conveyance under these codes.

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## 15. REGULATORY INFORMATION

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### U.S. Federal Regulations

TSCA Inventory Status: In compliance with TSCA Inventory requirements for commercial purposes.

**Engineered Polymer Products**  
**MATERIAL SAFETY DATA SHEET**  
**DURAGRIP<sup>®</sup> MELT-PROCESSIBLE ELASTOMER – NON-BLACK GRADES**

**State Regulations (U.S.)****State Right-To-Know Laws**

No substances on the state hazardous substances list, for the states indicated below, are used in the manufacture of products on this Material Safety Data Sheet, with the exceptions indicated.

Substances on The Pennsylvania Hazardous Substances List Present at a Concentration of 1% or more (0.01% For Special Hazardous Substances): None are known.

Substances Known to the State of California To Cause Cancer, Birth Defects or Other Reproductive Harm- None are known.

Substances on The New Jersey Workplace Hazardous Substance List Present at a Concentration Of 1% Or More (0.1% For Substances Identified as Carcinogens, Mutagens or Teratogens): - None are known.

**Canadian Regulations**

WHMIS Classification: This is not a WHMIS Controlled product.

CEPA Status:

DSL: Reported / Included.

**16. OTHER INFORMATION**

**Medical Use Caution:** Do not use in medical applications involving implantation in the human body.

The data in this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

Responsibility for MSDS  
Address

Jeffrey S. Armour  
 Engineered Polymer Products  
 Specialty Polymer Materials Group  
 Ferro Corporation  
 400-A Maple Avenue  
 Carpentersville, IL 60110-0729  
 847-426-3350

Telephone

# indicates revision

End of MSDS