



CELANESE CHEMICAL COMPANY  
Chemcel Plant  
Bishop, Texas

TO: J. Susil

FROM: G. Ille

GI-150

November 6, 1980

*File 229.3*  
*GI-*  
*Did you*  
*talk to Jerry*  
*about ABI keeping*  
*files about*  
*records etc.*  
*11/11/80*  
*135-80*

REVIEW OF ASBESTOS HANDLING PROCEDURE

On November 5, 1980, supervision and key operating foremen from ABI met with the Celanese Safety Department to discuss compliance with the OSHA asbestos regulation. All personnel copied were present at the meeting. The following items were covered:

- a) Protective Equipment - The protective equipment presently used is adequate. ABI employees wear disposable coveralls when handling asbestos insulation. Although shoe covers are not required, these would be obtained for employees working in the asbestos pit.
- b) Notification Procedures Prior to Asbestos Insulation Removal - Environmental Coordinator must be notified 30 days prior to starting any asbestos insulation removal project in quantities greater than about 200 linear feet or 100 square feet.
- c) Laboratory Support - The Bishop Chemical Lab (C. Gary) or the Plastics and Specialties Lab (Nanette Flaten) will be contacted to determine whether the insulation to be removed contains asbestos. ABI will submit samples to the appropriate laboratory for analysis.
- d) Standard Operating Procedure - A copy of the Celanese Asbestos Policy was given to ABI Supervision. ABI agreed to write their own operating procedures for safely working with asbestos materials.
- e) Medical Examination - All ABI employees working with or handling asbestos materials do receive pre-employment, annual and termination examinations as specified 1910.1001 (j).
- f) Exposure Monitoring and Reporting - ABI will continue to conduct personal monitoring on employees handling asbestos, every six months or less. This data will be reported to the employee by the ABI safety supervisor.
- g) Warning Signs - Additional asbestos caution signs will be permanently placed near the asbestos pit.

Comments were made by ABI employees regarding better documentation of where employees spend their time (i.e., zone, tracking) and maintenance of industrial hygiene data. I explained that all industrial hygiene sampling data taken on ABI employees will be computerized, just as Celanese employee data is. This data is for Celanese and can be made available to ABI.

cc: W. H. Meyer  
R. Poirier

002293

*G. Ille*  
G. Ille

CELANESE PLASTICS & SPECIALTIES COMPANY  
TENTATIVE PRODUCT SPECIFICATIONS

Date: 4/26/82

CELANEX® J-277-D NATURAL

| <u>Formulation</u>                                                                 | <u>Target</u> |
|------------------------------------------------------------------------------------|---------------|
| Polybutylene Terephthalate Chip (1568)                                             | 55.3%         |
| Polybutylene Terephthalate Powder(1568)                                            | 3.0%          |
| Fiberglass: OCF K-419AAN911, 3/16"; PPG P-3540,<br>1/8"; Certainteed 963-A4, 3/16" | 29.0%         |
| PPG FSPO-405                                                                       | 4.9%          |
| Decabromodiphenyl Ether                                                            | 4.9%          |
| Asbestos                                                                           | 2.6%          |
| Acrawax C, Advawax 280                                                             | 0.3%          |

| <u>Specification Tests</u> | <u>Limits</u> | <u>Test Methods</u> |
|----------------------------|---------------|---------------------|
| Ash, wt.%                  | 34 ± 2        | CL 1-25             |
| Contamination              | Pass          | CL 2-15             |
| Volatiles, wt.%            | 0.10 max.     | CL 1-54             |
| Flammability Unaged, sec.  | 2 max.        | CL 2-21             |
| Flammability Aged, sec.    | 4 max.        | CL 2-21             |

| <u>Monitor Tests(Each Lot)</u>          | <u>Bishop Values<sup>1</sup></u> | <u>Test Methods</u> |
|-----------------------------------------|----------------------------------|---------------------|
| Color, Hunterlab D25A                   |                                  | CL 2-7              |
| L value                                 | 79.0                             |                     |
| b value                                 | 8.0                              |                     |
| Tensile Strength, psi                   | 18,580                           | CL 2-22             |
| Elongation, %                           | 4.36                             | CL 2-22             |
| Notched Izod Impact                     | 1.54                             | CL 2-19             |
| Flexural Strength, psi                  | 26,259                           | CL 2-23             |
| Flexural Modulus, psi x 10 <sup>6</sup> | 1.43                             | CL 2-23             |
| Intrinsic Viscosity                     | 0.65 min.                        | CL 1-69             |

<sup>1</sup> Values obtained are from a sample prepared in Summit and analyzed by the Bishop Laboratory. These values are aims which will be used for the first production run only. These values are not release criteria.

Lots which fall outside of specification limits will require product waiver before release.

PRODUCT SPECIFICATIONS AND PRODUCTION METHODS FOR J-277-D ARE UNDER DEVELOPMENT. PLEASE CONTACT THE PROCESS ENGINEERING SUPERINTENDENT PRIOR TO SCHEDULING A PRODUCTION RUN.

Approvals: \_\_\_\_\_ Date \_\_\_\_\_  
                    Plant Technical Manager

                    \_\_\_\_\_ Date \_\_\_\_\_  
                    Operations Manager

002294

CELANESE PLASTICS & SPECIALTIES COMPANY  
PRODUCT SPECIFICATIONS

Specification No.: H-1027  
Date: 6-24-82  
Supersedes: 11-23-81

CELANEX® 3210-2 COLOR

| <u>Formulation</u>                                                                 | <u>Target</u> |
|------------------------------------------------------------------------------------|---------------|
| Polybutylene Terephthalate Chip (1568) <sup>1</sup>                                | 65.7%         |
| Fiberglass: OCF K-419AAN911, 3/16"; PPG P-3540,<br>1/8"; Certainteed 30A-A4, 3/16" | 18.0%         |
| Antimony Trioxide                                                                  | 6.5%          |
| Decabromodiphenyl Oxide                                                            | 6.5%          |
| Asbestos                                                                           | 3.0%          |
| Acrawax C, Advawax 280                                                             | 0.3%          |
| Colorants Per Color Formulation                                                    |               |

| <u>Specification Tests</u>              | <u>Limits<sup>2</sup></u> | <u>Test Methods</u>   |
|-----------------------------------------|---------------------------|-----------------------|
| Ash, wt. %                              | 24 ± 2                    | CL 1-25               |
| Contamination                           | Pass                      | CL 2-15               |
| Color, Hunterlab D25A                   | Commercial<br>Match       | CL 2-7                |
| Flammability Unaged, sec.               | 2 max.                    | CL 2-21               |
| Flammability Aged, sec.                 | 4 max.                    | CL 2-21               |
| Tensile Strength, psi                   | 13,000 min.               | CL 2-22               |
| Elongation, %                           | 2.0 min.                  | CL 2-22               |
| Notched Izod Impact                     | 0.60 min.                 | CL 2-19               |
| Melt Index, gm./10 min.                 | 35.0 Target <sup>3</sup>  | CL 1-114 <sup>4</sup> |
| <u>Monitor Tests</u>                    | <u>Limits</u>             | <u>Test Methods</u>   |
| Intrinsic Viscosity                     | 0.65 min.                 | CL 1-69               |
| Volatiles, wt. %                        | 0.10 max.                 | CL 1-54               |
| Flexural Strength, psi                  | 19,000 min.               | CL 2-23               |
| Flexural Modulus, psi x 10 <sup>6</sup> | 1.00 min.                 | CL 2-23               |

<sup>1</sup> Typically a portion of the polybutylene terephthalate chip (1568) is replaced with polybutylene terephthalate powder (1568) to aid flame retardant materials dispersion. The amount of polybutylene terephthalate powder (1568) used in Special Products and Phase I is 3.0% and 6.0%, respectively.

<sup>2</sup> These values are not based on demonstrated manufacturing capability. These values will serve as control limits until sufficient manufacturing history has been obtained.

<sup>3</sup> TARGETS ARE AVERAGE PRODUCTION AIM VALUES, WHICH ARE BASED UPON LIMITED MANUFACTURING HISTORY. THESE VALUES ARE NOT RELEASE CRITERIA.

<sup>4</sup> Substitute 2160 gram weight per RTS/Bell Laboratories.

Lots which fall outside of specification limits will require product waiver before release.

Approvals: /s/ D. A. Reck Date 10/16/81  
Plant Technical Manager  
/s/ H. W. Hill Date 10/16/81  
Operations Manager  
/s/ A. R. Kurkowski Date 10/19/81  
Product Manager  
/s/ H. L. Davis Date 11/9/81  
Technical Manager  
/s/ M. M. Wilson Date 10/19/81  
Technical Service Manager

002295

CELANESE PLASTICS & SPECIALTIES COMPANY  
PRODUCT SPECIFICATIONS

Specification No.: H-1026  
Date: 6-24-82  
Supersedes: 11-23-81

CELANEX® 3210-2 BLACK

| <u>Formulation</u>                                                              | <u>Target</u> |
|---------------------------------------------------------------------------------|---------------|
| Polybutylene Terephthalate Chip (1568) <sup>1</sup>                             | 65.7%         |
| Fiberglass: OCF K-419AAN911, 3/16"; PPG P-3540, 1/8"; Certainteed 30A-A4. 3/16" | 18.0%         |
| Antimony Trioxide                                                               | 6.5%          |
| Decabromodiphenyl Oxide                                                         | 6.5%          |
| Asbestos                                                                        | 3.0%          |
| Acrawax C, Advawax 280                                                          | 0.3%          |
| Black Colorant Per Color Formulation                                            |               |

| <u>Specification Tests</u>              | <u>Limits</u>            | <u>Test Methods</u>   |
|-----------------------------------------|--------------------------|-----------------------|
| Ash, wt. %                              | 24 ± 2                   | CL 1-25               |
| Contamination                           | Pass                     | CL 2-15               |
| Color, Hunterlab D25A                   | Commercial Match         | CL 2-7                |
| Flammability Unaged, sec.               | 2 max.                   | CL 2-21               |
| Flammability Aged, sec.                 | 4 max.                   | CL 2-21               |
| Tensile Strength, psi                   | 13,500 min.              | CL 2-22               |
| Elongation, %                           | 2.0 min.                 | CL 2-22               |
| Notched Izod Impact                     | 0.80 min.                | CL 2-19               |
| Melt Index, gm./10 min.                 | 35.0 Target <sup>2</sup> | CL 1-114 <sup>3</sup> |
| <u>Monitor Tests</u>                    | <u>Limits</u>            | <u>Test Methods</u>   |
| Intrinsic Viscosity                     | 0.65 min.                | CL 1-69               |
| Volatiles, wt. %                        | 0.10 max.                | CL 1-54               |
| Flexural Strength, psi                  | 22,000 min.              | CL 2-23               |
| Flexural Modulus, psi x 10 <sup>6</sup> | 1.00 min.                | CL 2-23               |

<sup>1</sup> Typically a portion of the polybutylene terephthalate chip (1568) is replaced with polybutylene terephthalate powder (1568) to aid flame retardant materials dispersion. The amount of polybutylene terephthalate powder (1568) used in Special Products and Phase I is 3.0% and 6.0%, respectively.

<sup>2</sup> TARGETS ARE AVERAGE PRODUCTION AIM VALUES, WHICH ARE BASED UPON LIMITED MANUFACTURING HISTORY. THESE VALUES ARE NOT RELEASE CRITERIA.

<sup>3</sup> Substitute 2160 gram weight per RTS/Bell Laboratories.

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/s/ H. W. Hill Date 10/16/81  
Operations Manager

/s/ A. R. Kurkowski Date 10/19/81  
Product Manager

/s/ H. L. Davis Date 11/9/81  
Technical Manager

/s/ M. M. Wilson Date 10/19/81  
Technical Service Manager

002296

CELANESE PLASTICS & SPECIALTIES COMPANY  
PRODUCT SPECIFICATIONS

Specification No.: H-1025  
Date: 6-24-82  
Supersedes: 11-23-81

CELANEX® 3210-2 NATURAL

| <u>Formulation</u>                                                                 | <u>Target</u> |
|------------------------------------------------------------------------------------|---------------|
| Polybutylene Terephthalate Chip (1568) <sup>1</sup>                                | 65.7%         |
| Fiberglass: OCF K-419AAN911, 3/16"; PPG P-3540,<br>1/8"; Certainteed 30A-A4, 3/16" | 18.0%         |
| Antimony Trioxide                                                                  | 6.5%          |
| Decabromodiphenyl Oxide                                                            | 6.5%          |
| Asbestos                                                                           | 3.0%          |
| Acrawax C, Advawax 280                                                             | 0.3%          |

| <u>Specification Tests</u> | <u>Limits</u>            | <u>Test Methods</u>   |
|----------------------------|--------------------------|-----------------------|
| Ash, wt. %                 | 24 ± 2                   | CL 1-25               |
| Contamination              | Pass                     | CL 2-15               |
| Color, Hunterlab D25A      |                          | CL 2-7                |
| L Value                    | 78.0 min.                |                       |
| b Value                    | 10.0 max.                |                       |
| Flammability Unaged, sec.  | 2 max.                   | CL 2-21               |
| Flammability Aged, sec.    | 4 max.                   | CL 2-21               |
| Tensile Strength, psi      | 14,000 min.              | CL 2-22               |
| Elongation, %              | 2.0 min.                 | CL 2-22               |
| Notched Izod Impact        | 0.80 min.                | CL 2-19               |
| Melt Index, gm./10 min.    | 35.0 Target <sup>2</sup> | CL 1-114 <sup>3</sup> |

| <u>Monitor Tests</u>                    | <u>Limits</u> | <u>Test Methods</u> |
|-----------------------------------------|---------------|---------------------|
| Intrinsic Viscosity                     | 0.65 min.     | CL 1-69             |
| Volatiles, wt. %                        | 0.10 max.     | CL 1-54             |
| Flexural Strength, psi                  | 22,000 min.   | CL 2-23             |
| Flexural Modulus, psi x 10 <sup>6</sup> | 1.00 min.     | CL 2-23             |

<sup>1</sup> Typically a portion of the polybutylene terephthalate chip (1568) is replaced with polybutylene terephthalate powder (1568) to aid flame retardant materials dispersion. The amount of polybutylene terephthalate powder (1568) used in Special Products and Phase I is 3.0% and 6.0%, respectively.

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/s/ H. L. Davis Date 11/9/81  
Technical Manager

/s/ M. M. Wilson Date 10/19/81  
Technical Service Manager

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