Innovational Technology of Dope Dyed Polyester
Innovational Dope Dyed

Traditional Piece Dyed Are Exhausting Earth Resources

- **water consumption**
  - Traditional: 1 kg
  - Dope Dyed: 115 kg water

- **CO₂ emission**
  - Traditional: 1 kg
  - Dope Dyed: 3.75 kg CO₂

- **energy consumption**
  - Traditional: 1 kg
  - Dope Dyed: 3.67 KWH
What We Can Do for Our Environment?

No Dye  ⇌  Dope Dyed

• But Traditional Dope Dyeing Method Has Some Problems
• New Dope Dyed— CHROMUCH Has the Solutions
Innovational Dope Dyed

Traditional Dope Dyed

Pigment
- good color fastness
- dull color
- limited series of colors

Dye Stuff
- diversified color
- more brilliant
- migration problem

Deep or Brilliant
Color Fastness
Chromuch—New Dope Dyed

- Polyester Blending with Pigment + Dyestuff
  → Better Colors Development
- Unique technology to Trap the Dyestuff
  → Excellent Color Fastness

Deep or Brilliant

Color Fastness

trap dyestuff

heat set
Innovational Dope Dyed

5 Advantage

• Most Brilliant and Deepest Color
  Bluish Black, High Visibility Color

• Widest Color Range
  82% Wider

• Better Color Fastness
  ALL Color > 4 Grade

• Most Flexible Production
  Min. M.O.R (500 Kg)

• Most Colors Available
  More Than 1,000 Standard Colors
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**Most Brilliant and Deepest Color**—
- Bluish Black Color can satisfy color standard of brand’s black color

black with different color shade

uniqlo  asics  adidas  Nike  GAP  columbia
Innovational Dope Dyed

- EN 20471 High Visibility Color
- Neon Colors with Good Color Fastness
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- **Widest Color Range** —
  82% Wider Compared to Traditional Dope Dyed

- CHROMUCH
- traditional dope dyed
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- **Excellent Color Fastness**
  Unique Technology to Prevent Dyestuff Migration

• Washing Color Fastness of Bluish Black

<table>
<thead>
<tr>
<th>Heat Setting °C</th>
<th>Color Fastness Rating</th>
<th>Image</th>
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<tbody>
<tr>
<td>160</td>
<td>4-5</td>
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<tr>
<td>180</td>
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<td><img src="image2.png" alt="Image" /></td>
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<tr>
<td>200</td>
<td>4-5</td>
<td><img src="image3.png" alt="Image" /></td>
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*after 160, 180, 200°C heat setting*

AATCC 61 III A (wash temp. 71°C)
Innovational Dope Dyed

- Washing Color Fastness (AATTC 61 II A) after 190°C heat setting

<table>
<thead>
<tr>
<th>Code</th>
<th>Material</th>
<th>Temperature</th>
<th>Grade</th>
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<tr>
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<td>190°C</td>
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<tr>
<td>NPA37</td>
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<td>190°C</td>
<td>4-5</td>
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<tr>
<td>4PAS7-3</td>
<td></td>
<td>190°C</td>
<td>4-5</td>
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<tr>
<td>LKA17</td>
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<td>190°C</td>
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<tr>
<td>LXA16</td>
<td></td>
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<tr>
<td>LWA16</td>
<td></td>
<td>190°C</td>
<td>4</td>
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Traditional dope dyed lower than 3-4 grade
Innovational Dope Dyed

- EN 20471 High Visibility with Better Light Color Fastness & Washing Color Fastness after 190°C Heat Setting

Light color fastness of yellow neon color

<table>
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<tr>
<th>grade</th>
<th>20</th>
<th>60</th>
<th>100</th>
<th>140</th>
<th>180</th>
<th>220</th>
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<tbody>
<tr>
<td>CHROMUCH</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Piece dyed</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Washing color fastness

- LXP1E 190°C: 4
- LYP17 190°C: 4
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- More Than 1,000 Colors Available—Most Colors Available No Need Color Matching
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Innovational Dope Dyed

➢ Most Flexible Production —
  • CHROMUCH Could be Changed Color in a Very Short Time
  • 6-10 Colors Produced at One Time for the Same Series Colors
  • M.O.Q. 500Kg
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Eco-friendly

traditional piece dyed v.s dope dyed

* woven (based on fabric weight 120 G/Y)
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CHROMUCH®-Glux
— Derivative Product of CHROMUCH

• Dope Dyed Yarn with Gradient Color Change

• Customizable Repeated Cycle
  Repeated Cycle of Yarn: 2.2 Km ~ 4.4 Km

• Applied to Woven Weft Yarn
  ➞ Elegant Color Gradient Effect
Innovational Dope Dyed

- 8 Base Colors are Available Now
- Over Dyeing Nylon Warp Yarn
  → More Colors & Shimmery Effect
Innovational Dope Dyed

What’s the Next step?

Color Masterbatch

Recycled Pellets

Recycled CHROMUCH
Work Hand in Hand with You
to Make Contribution to the Earth

Contact Us
Eric Huang
erichuang@npc.com.tw
ww.npc.com.tw