

Polyamide dyes

We open up new perspectives

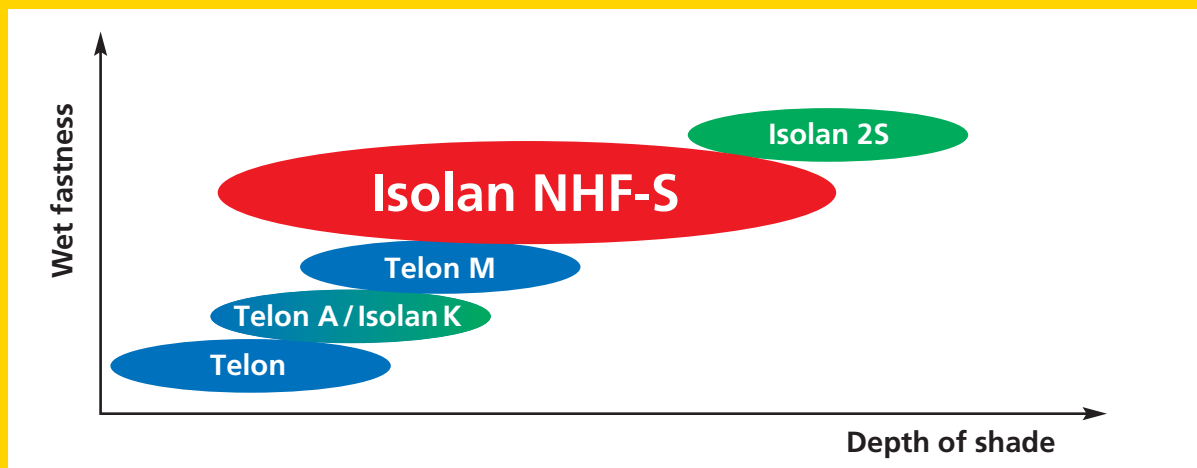


High-performance dyes for polyamide

Polyamide has gained a firm place in the market for functional clothing in recent years – both on its own and in blends with cotton, polyurethane and polyester.

As a leading supplier of products and services for the textile industry, DyStar markets a full range of well-matched products. We offer optimum solutions for all applications from carpets over polyamide garments lingerie up to parachutes.

Our dye classes comprise high-performance products geared to meeting all specifications.



Telon® = Acid dyes (Telon, Telon A, Telon M)

Isolan® = 1:2 metal-complex dyes (Isolan, Isolan NHF-S, Isolan 2S)

Following the acquisition of Rotta and Boehme, DyStar now offers its customers a wide range of auxiliaries for the pretreatment, processing and finishing of textiles. Our ongoing development work creates innovative new products that are tailored specifically to the needs of the industry.

Benefits at a glance

- The world's most extensive range of dyes, auxiliaries and services for polyamide
- Investment in R&D to develop new products and processes
- Trained and experienced representatives in all markets
- Consistently high quality standards worldwide

Telon®

(mainly for carpets and pale shades)

- Monosulphonated acid dyes (half-milling type)
- Good combinability
- Very good levelling and migration properties
- Good coverage of barréness
- No blocking effect
- High light fastness



Telon® A

for pale to medium shades
(e.g. sportswear)

- Monosulphonated acid dyes (half-milling type)
- Good combinability
- Good levelling and migration properties
- No blocking effect
- Good coverage of barréness



Telon® M

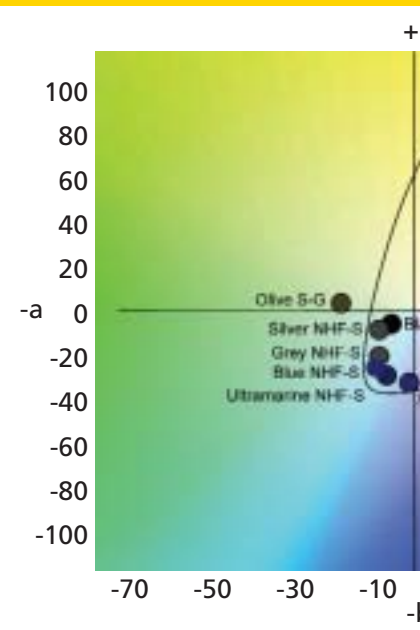
for brilliant shades
(e.g. swimwear/sportswear)

- Disulphonated acid dyes (milling type)
- Very brilliant shades
- High wet fastness
- Good combinability with Isolan NHF-S and Isolan 2S dyes



Isolan® NHF-S

All-round dyes with high fastness



- 1:2 metal-complex dyes
- Good trichromatic compatibility
- High wet fastness level
- No catalytic fading
- Good tone on tone dyeing PA/PES/PES/PES
- Suitable for CO/PA and PES/PES
- Can be combined with Isolan 2S and with Telon M dyes for brilliant shades



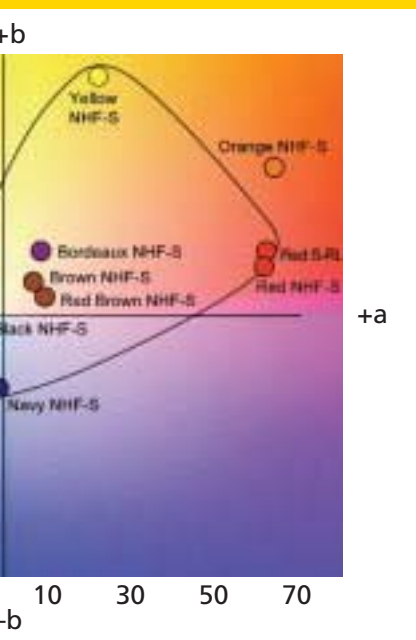
Isolan®

for extremely high light fastness
(e.g. automotive fabrics)

- 1:2 metal-complex dyes (unsulphonated)
- Very high light fastness
- Selected dyes meet standards for automotive sector
- Coverage of barréness
- High wet fastness



Fastness properties



ility

/PU

PA blends

2S to dye dark shades

ilient shades



Isolan® 2S

for very high light fastness requirements
in opaque shades
(e.g. workwear)

- 1:2 metal-complex dyes (with two sulpho groups)
- Very high wash fastness
- Combinable with Telon M and Isolan NHF-S dyes
- Very economical

Telon® RN

for maximum wet fastness
(e.g. high-end articles that are fast to repeated washing)

- Full range covering a broad spectrum of shades
- Trichromat combination has very good combinability
- Good light fastness – like other reactive dyes
- Very high wash fastness at high temperatures (85-95 °C)
- Suitable for multiple wash cycles at 60 °C
- Telon RNC ternary combination is suitable for moulding



Alphabetical list of old and new product names

| Old name | New name | Old name | New name |
|--------------------------------|---------------------------|--------------------------|--------------------------|
| NEW | Isolan Bordeaux NHF-S | Isolan Yellow K-GLN 250% | No change |
| NEW (Isolan Navy SP-B*) | Isolan Ultramarine NHF-S | Isolan Yellow K-PRL 200% | No change |
| NEW | Telon Black RN | Isolan Yellow SP-2RL* | Isolan Yellow NHF-S |
| NEW | Telon Blue 4RN | Telon Black AMF | No change |
| NEW | Telon Blue A2R | Telon Blue A3GL | No change |
| NEW | Telon Brilliant Blue RN | Telon Blue AFN | No change |
| NEW | Telon Brilliant Red RN | Telon Blue AGLF | No change |
| NEW | Telon Brilliant Yellow RN | Telon Blue AR | No change |
| NEW | Telon Luminous Yellow RN | Telon Blue BRL micro | No change |
| NEW | Telon Navy RN | Telon Blue GGL | No change |
| NEW | Telon Orange RN | Telon Blue M-2R | No change |
| NEW | Telon Pink BRLF | Telon Blue M-BLW | No change |
| NEW | Telon Red A2R | Telon Blue M-GLW | No change |
| NEW | Telon Red RNC | Telon Blue M-RLW | No change |
| NEW | Telon Royal RN | Telon Blue RR | No change |
| NEW | Telon Rubine RN | Telon Brown 3G | No change |
| NEW | Telon Scarlet RN | Telon Flavine M-7G | No change |
| NEW | Telon Yellow RNC | Telon Green M-6GW | No change |
| | | Telon Green M-BW | No change |
| Isolan Black 2S-LD | No change | Telon Navy AMF | No change |
| Isolan Black 2S-LDN / liq | No change | Telon Orange AGT | No change |
| Isolan Black 2S-LGN liq | No change | Telon Orange M-GSN | No change |
| Isolan Black 3RL | No change | Telon Red 2B | No change |
| Isolan Black S-BGL | Isolan Black NHF-S | Telon Red 2BL micro | No change |
| Isolan Blue 3GL | No change | Telon Red 2BN | No change |
| Isolan Blue SP-R* | Isolan Blue NHF-S | Telon Red A2FR | No change |
| Isolan Bordeaux 2S-B | No change | Telon Red AFG | No change |
| Isolan Bordeaux R 220% | No change | Telon Red BRL micro | No change |
| Isolan Brown 2S-BL | No change | Telon Red FRL micro | No change |
| Isolan Brown S-GLN | Isolan Brown NHF-S | Telon Red M-3B | Telon Red M-3B 80% |
| Isolan Brown S-RL | Isolan Red Brown NHF-S | Telon Red M-BL | No change |
| Isolan Dark Blue 2S-GL | No change | Telon Red M-GWN | No change |
| Isolan Grey K-PBL 200% | No change | Telon Red M-R | No change |
| Isolan Grey S-GL | Isolan Silver NHF-S | Telon Rhodamine M-BN | No change |
| Isolan Grey SP-G* | Isolan Grey NHF-S | Telon Rubine A5B | No change |
| Isolan Navy Blue S-RL | Isolan Navy NHF-S | Telon Turquoise M-5G | Telon Turquoise M-5G 85% |
| Isolan Olive 2S-BGL | No change | Telon Violet M-RWN | No change |
| Isolan Olive S-G | No change | Telon Yellow 4R micro | No change |
| Isolan Orange K-RLS 150% | Isolan Orange K-RLS 135% | Telon Yellow A2R | No change |
| Isolan Orange S-RL | Isolan Orange NHF-S | Telon Yellow A3GL | No change |
| Isolan Red 2S-BR | No change | Telon Yellow A3R | No change |
| Isolan Red SP-G* | Isolan Red NHF-S | Telon Yellow ARB | No change |
| Isolan Red S-RL | No change | Telon Yellow FG | No change |
| Isolan Scarlet K-GLS gran 150% | No change | Telon Yellow FRL micro | No change |
| Isolan Yellow 2S-GLN | No change | Telon Yellow M-4GL | No change |
| Isolan Yellow 2S-RL | No change | Telon Yellow M-5GL | No change |
| Isolan Yellow GRL | No change | Telon Yellow RLN micro | No change |

*Region America/Europe

The new polyamide dye range at a glance

| New name | Old name |
|--------------------------|------------------------------|
| Isolan NHF-S | |
| Isolan Yellow NHF-S | Isolan Yellow SP-2RL* |
| Isolan Orange NHF-S | Isolan Orange S-RL |
| Isolan Red NHF-S | Isolan Red SP-G* |
| Isolan Bordeaux NHF-S | NEW |
| Isolan Brown NHF-S | Isolan Brown S-GLN |
| Isolan Red Brown NHF-S | Isolan Brown S-RL |
| Isolan Blue NHF-S | Isolan Blue SP-R* |
| Isolan Navy NHF-S | Isolan Navy Blue S-RL |
| Isolan Ultramarine NHF-S | Isolan Navy SP-B* NEW |
| Isolan Grey NHF-S | Isolan Grey SP-G* |
| Isolan Silver NHF-S | Isolan Grey S-GL |
| Isolan Black NHF-S | Isolan Black S-BGL |
| Isolan Red S-RL | No change |
| Isolan Olive S-G | No change |

| Isolan | |
|--------------------------------|--------------------------|
| Isolan Yellow K-GLN 250% | No change |
| Isolan Yellow GRL | No change |
| Isolan Yellow K-PRL 200% | No change |
| Isolan Orange K-RLS 135% | Isolan Orange K-RLS 150% |
| Isolan Scarlet K-GLS gran 150% | No change |
| Isolan Bordeaux R 220% | No change |
| Isolan Blue 3GL | No change |
| Isolan Grey K-PBL 200% | No change |
| Isolan Black 3RL | No change |

| Isolan 2S | |
|---------------------------|-----------|
| Isolan Yellow 2S-GLN | No change |
| Isolan Yellow 2S-RL | No change |
| Isolan Scarlet 2S-L | No change |
| Isolan Red 2S-BR | No change |
| Isolan Bordeaux 2S-B | No change |
| Isolan Brown 2S-BL | No change |
| Isolan Dark Blue 2S-GL | No change |
| Isolan Olive 2S-BGL | No change |
| Isolan Black 2S-LD | No change |
| Isolan Black 2S-LDN / liq | No change |
| Isolan Black 2S-LGN liq | No change |

| Telon RN | |
|---------------------------|------------|
| Telon Luminous Yellow RN | NEW |
| Telon Brilliant Yellow RN | NEW |
| Telon Yellow RNC | NEW |
| Telon Orange RN | NEW |
| Telon Scarlet RN | NEW |
| Telon Red RNC | NEW |
| Telon Brilliant Red RN | NEW |
| Telon Rubine RN | NEW |
| Telon Brilliant Blue RN | NEW |
| Telon Blue RNC | NEW |
| Telon Royal RN | NEW |
| Telon Navy RN | NEW |
| Telon Black RN | NEW |

*Region America/Europe

| New name | Old name |
|-------------------|------------|
| Telon A | |
| Telon Yellow A3GL | No change |
| Telon Yellow ARB | No change |
| Telon Yellow A2R | No change |
| Telon Yellow A3R | No change |
| Telon Orange AGT | No change |
| Telon Red A2FR | No change |
| Telon Red A2R | NEW |
| Telon Red AFG | No change |
| Telon Rubine A5B | No change |
| Telon Blue AR | No change |
| Telon Blue A2R | NEW |
| Telon Blue AGLF | No change |
| Telon Blue AFN | No change |
| Telon Blue A3GL | No change |
| Telon Navy AMF | No change |
| Telon Black AMF | No change |

| Telon M | |
|--------------------------|----------------------|
| Telon Flavine M-7G | No change |
| Telon Yellow M-5GL | No change |
| Telon Yellow M-4GL | No change |
| Telon Orange M-GSN | No change |
| Telon Red M-R | No change |
| Telon Red M-GWN | No change |
| Telon Red M-BL | No change |
| Telon Red M-3B 80% | Telon Red M-3B |
| Telon Rhodamine M-BN | No change |
| Telon Violet M-RWN | No change |
| Telon Blue M-BLW | No change |
| Telon Blue M-RLW | No change |
| Telon Blue M-GLW | No change |
| Telon Blue M-2R | No change |
| Telon Turquoise M-5G 85% | Telon Turquoise M-5G |
| Telon Green M-BW | No change |
| Telon Green M-6GW | No change |

| Telon | |
|------------------------|------------|
| Telon Yellow FG | No change |
| Telon Yellow RLN micro | No change |
| Telon Yellow FRL micro | No change |
| Telon Yellow 4R micro | No change |
| Telon Brown 3G | No change |
| Telon Pink BRLF | NEW |
| Telon Red FRL micro | No change |
| Telon Red 2BL micro | No change |
| Telon Red 2B | No change |
| Telon Red 2BN | No change |
| Telon Red BRL micro | No change |
| Telon Blue RR | No change |
| Telon Blue BRL micro | No change |
| Telon Blue 4RN | NEW |
| Telon Blue GGL | No change |

Products and services to improve the reliability of polyamide finishing operations

The extended Isolan NHF-S range

To help customers select the most suitable dyes from our extensive product range, DyStar has extended its Isolan NHF-S range for high-quality articles. Two new dyes have been added to the core Isolan NHF-S range and suitable Isolan S dyes have been integrated into the range.

Isolan NHF-S – the all-round dyes at a glance

- Wide range of shades with top wet and light fastness
- Dyes meet the specifications set by demanding retailers
- Maximum process reliability when dyeing 100% PA, PA/PU, PA/Cel and PA/PES
- No restrictions on use in exhaust, continuous and textile printing processes
- Especially suitable for high-quality sports/leisurewear and lingerie

Telon RN – reactive dyes for polyamide

Telon RN dyes are a new departure: for the first time ever there is a readily combinable reactive ternary combination for dyeing polyamide. The product range comprises 13 dyes which cover the full range of shades from dull to extremely brilliant. These dyes are particularly suitable for high-end articles that are expected to be wash fast at temperatures up to 95 °C or fast to multiple wash cycles at high temperatures. Telon RN dyes maximise wash fastness at all depths of shade, providing the fibre saturation rate is not exceeded. Careful selection based on the fibre data determined by DyStar mean that limitations on depth of shade and brilliancy can be calculated in advance.

Established products

For all other applications, e.g. lining fabrics, carpets, technical textiles and automotive fabrics, DyStar markets optimised metal-free acids dyes (Telon, Telon A, Telon M) and 1:2 metal-complex dyes (Isolan and Isolan 2S).

Process for optimised dyeing

The Polyamide S process enables you to optimise exhaust dyeing of polyamide with DyStar dyes on all dyeing units. The Optidye N computer program is a logical extension of the Polyamide S process. It calculates the required pH, optimum concentration of auxiliaries, heating-up rate and minimum dyeing time for given machine settings and substrates. Optidye N optimises the appearance of goods and reduces process costs.



Our products and services help customers worldwide reduce costs, shorten lead times and meet quality specifications. DyStar – Shaping success.



● Belgium
 DyStar Benelux
 Louizalaan 200/B132
 Avenue Louise 200/B132
 1050 Brussel/Bruxelles
 DyStar.Benelux@DyStar.com

● Brazil
 DyStar Ltda.
 Av. Eng° Luis Carlos Berrini
 1645-11° andar, Cidade Monções
 CEP 04571-011, São Paulo / SP
 Tel.: ++55-11-55 08 36 84
 Fax: ++55-11-55 08 36 23
 DyStar.Brazil@DyStar.com

● China/Hong Kong
 DyStar China Ltd.
 18/F, Yen Sheng Centre
 64 Hoi Yuen Road
 Kwun Tong, Hong Kong
 Tel.: ++85-2-29 55 33 88
 Fax: ++85-2-29 55 11 88
 DyStar.China@DyStar.com

● China/Shanghai
 DyStar (Shanghai) Trading Co., Ltd.
 10/F, Section 1002, Building No. 9
 99 Tian Zhou Road
 Shanghai Caohejing Hi-Tech Park
 Shanghai 200233
 Tel.: ++86-21-61 15 91 18
 Fax: ++86-21-61 15 90 03
 DyStar.China@DyStar.com

● France
 DyStar France s.a.r.l.
 15, rue des Entrepreneurs
 Lieudit « Rue des Verts Prés »
 59700 Marcq en Baroeul
 Tel.: ++33-320 42 31 34
 Fax: ++33-320 42 31 46
 DyStar.France@DyStar.com

● Germany
 DyStar Vertrieb D-A-CH/Nordica
 65926 Frankfurt am Main
 Tel.: ++49-69-21 09-22 36
 Fax: ++49-69-21 09-26 06
 DyStar.Germany@DyStar.com

● India
 DyStar India Private Limited
 Marwah House, Ground Floor
 Krishanlal Marwah Marg
 Saki Vihar Road, Saki Naka
 Andheri East, Mumbai 400 072
 Tel.: ++91 22-40 34 90 00
 Fax: ++91 22-40 34 90 10
 DyStar.India@DyStar.com

● Indonesia
 PT DyStar Colours Indonesia
 Menara Global Building
 22nd Floor
 Jln. Gatot Subroto Kav. 27
 Jakarta 12930
 Tel.: ++62-21-527 05 50
 Fax: ++62-21-527 05 20
 DyStar.Indonesia@DyStar.com

● Italy
 DyStar Italia S.r.l.
 Via delle Groane 126
 20024 Garbagnate Milanese (MI)
 Tel.: ++39-02-99 44 01
 Fax: ++39-02-99 02 83 91
 DyStar.Italy@DyStar.com

● Japan
 DyStar Japan Ltd.
 7-20, Azuchimachi 1-chome,
 Chuo-ku, Osaka 541-0052
 Tel.: ++81-6-62 63 66 72
 Fax: ++81-6-62 63 66 91
 DyStar.Japan@DyStar.com

● Korea
 DyStar Korea Ltd.
 141-28, 10th fl.
 Dong Shin Building
 Samsung-dong, Kangnam-gu.
 P.O. Box Kangnam 537
 135-090 Seoul
 Tel.: ++82-2-34 52 78 78
 Fax: ++82-2-34 52 78 76
 DyStar.Korea@DyStar.com

● Mexico
 DyStar de México S. de R.L. de C.V.
 Arenal 24 – Edificio Sur – 3er. Piso
 Col. Ex-Hda. Gpe. Chimalistac
 01050-México, D. F.
 Tel.: ++52-55-53 22 51 00
 Fax: ++52-55-56 62 56 18
 DyStar.Mexico@DyStar.com

● Pakistan
 DyStar Pakistan (Private) Limited
 Bahria Complex-II, 2F
 M. T. Khan Road
 Karachi-74000
 Tel.: ++92-21-561-18 19
 Fax: ++92-21-561-16 24
 DyStar.Pakistan@DyStar.com

● Portugal
 DyStar Anilinas Têxteis
 Unipessoal, Lda.
 Rua Manuel Pinto de Azevedo, 626
 4100-320 Porto
 Tel.: ++351-22-6 15 31 80
 Fax: ++351-22-6 15 31 90
 DyStar.Portugal@DyStar.com

● Singapore
 DyStar Singapore Pte. Ltd.
 152 Beach Road
 #37-00 The Gateway East
 Singapore 189721
 Tel.: ++65-62 98 79 22
 Fax: ++65-62 95 53 08
 DyStar.Singapore@DyStar.com

● South Africa
 DyStar South Africa (Pty) Ltd.
 16 Henwood Road, P.O. Box 1421
 Pinetown 3610
 Tel.: ++27-31-710 65 10
 Fax: ++27-31-7 09 37 22
 DyStar.SouthAfrica@DyStar.com

● Spain
 DyStar Hispania, S.L.,
 Sociedad Unipersonal
 c/Famadas, 37-57
 08907 Hospitalet de Llobregat
 Tel.: ++34-93-2 64 04 40
 Fax: ++34-93-2 64 04 58
 DyStar.Spain@DyStar.com

● Taiwan
 DyStar Taiwan Ltd.
 5th Fl., No. 196, Sec. 2
 Chien Kuo N. Road
 104 Taipei, Taiwan, R.O.C.
 Tel.: ++886-2-25 16 37 77
 Fax: ++886-2-25 16 81 99
 DyStar.Taiwan@DyStar.com

● Thailand
 DyStar Thai Ltd.
 193 Lake Rajada Building
 17th floor
 Ratchadapisek Road
 Klongtoey, Bangkok 10110
 Tel.: ++66-2-2 64 04 70
 Fax: ++66-2-2 64 04 74
 DyStar.Thai@DyStar.com

● Turkey
 DyStar Tekstil Boya ve Teknolojisi
 Sanayi Ticaret Limited Şirketi
 İstanbul-Trakya Serbest Bölgesi
 Atatürk Bulvarı, Begonya Sk. No.1, K3
 34540 Çatalca – İstanbul
 Tel.: ++90-212-866 50 00
 Fax: ++90-212-866 50 90 /91 /92
 DyStar.Turkey@DyStar.com

● United Kingdom
 DyStar UK Ltd.
 Unit 2/Pennine Business Park
 Bradley Road, Huddersfield
 West Yorkshire HD2 1RA
 Tel.: ++44-14 84 - 41 14 00
 Fax: ++44-14 84 - 41 14 01
 DyStar.UK@DyStar.com

● USA
 DyStar L.P.
 9844-A Southern Pine Boulevard
 Charlotte, NC 28273
 Tel.: ++1-704-561 30 00
 Fax: ++1-704-561 30 05
 DyStar.USA@DyStar.com

This information and our technical advice – whether verbal, in writing or by way of trials – are given in good faith but without warranty, and this also applies where proprietary rights of third parties are involved. Our advice does not release you from the obligation to check its validity and to test our products as to their suitability for the intended processes and uses. The application, use and processing of our products and the products manufactured by you on the basis of our technical advice are beyond our control and, therefore, entirely your own responsibility. Our products are sold in accordance with our General Conditions of Sale and Delivery.