



Instructions for use

ROTIPHORESE® Acrylamide- and Bisacrylamide Stock Solutions

3037, 7748, 3039

For producing gel solutions for SDS-PAGE

PAGE solutions are always a mixture of acrylamide and bisacrylamide. Acrylamide forms linear polymers, whereas bisacrylamide cross links these linear polymers forming pores of a special size. The pore size may be altered by varying the total gel concentration (% T) and the percentage of the crosslink (% C).

With the ROTIPHORESE® stock solutions the desired T/C rate can be produced. You need an acrylamide stock solution and a bisacrylamide stock solution.

Stock solutions:

ROTIPHORESE® Gel A – aqueous solution with 30 % acrylamide (Art. No. 3037)

ROTIPHORESE® Gel A-40 – aqueous solution with 40 % acrylamide (Art. No. 7748)

ROTIPHORESE® Gel B – aqueous solution with 2 % bisacrylamide (Art. No. 3039)

With *ROTIPHORESE® Gel A solution* you may produce gels with a total gel concentration of up to 20 %.

With *ROTIPHORESE® Gel A-40- solution* you may produce gels with a total gel concentration of up to 25 %.

Formulas for calculating the necessary amounts:

V_t = Total volume of gel casting solution (ml)

T = Gel concentration in % = % Acrylamide + % Bisacrylamide

C = % Crosslinking = (% Bisacrylamide x 100) / T

V_a = Volume Gel A/A-40 in ml

V_b = Volume Gel B in ml

Applying for Gel A (30 % solution):

$V_a = (T \times (100 - C) \times V_t) / 3000$ $V_b = (T \times C \times V_t) / 200$ for $T \leq 20$

Applying for Gel A-40 (40 % solution):

$V_a = (T \times (100 - C) \times V_t) / 4000$ $V_b = (T \times C \times V_t) / 200$ for $T \leq 25$

Examples for calculation:

Example Gel A:

To prepare 100 ml gel solution with 10 % T and 2.7 % C, calculate as follows:

$$V_a = (10 \times (100 - 2.7) \times 100) / 3000 = \mathbf{32.433 \text{ ml Gel A}}$$

$$V_b = (10 \times 2.7 \times 100) / 200 = \mathbf{13.500 \text{ ml Gel B}}$$

Combine 32.43 ml Gel A and 13.5 ml Gel B and fill up the volume to 100 ml with the usually used buffer. Degas and add APS and TEMED, mix thoroughly while avoiding bubbles and pour the gel.

Example Gel A-40:

To prepare 100 ml gel solution with 10 % T and 2.7 % C, calculate as follows:

$$V_a = (10 \times (100 - 2.7) \times 100) / 4000 = \mathbf{24.325 \text{ ml Gel A-40}}$$

$$V_b = (10 \times 2.7 \times 100) / 200 = \mathbf{13.500 \text{ ml Gel B}}$$

Combine 24.325 ml Gel A-40 and 13.5 ml Gel B and fill up the volume to 100 ml with the usually used buffer. Degas and add APS and TEMED, mix thoroughly while avoiding bubbles and pour the gel.

Storage:

The solutions are stored at 8 °C. The shelf life is minimum 1 year.



ROTIPHORESE® Gel A

| | | |
|--------|-------|--------|
| 3037.2 | glass | 250 ml |
| 3037.1 | glass | 1 l |

  **Danger** H302-H315-H317-H319-H340-H350-H361f-H372


ROTIPHORESE® Gel A-40

| | | |
|--------|-------|--------|
| 7748.1 | glass | 250 ml |
| 7748.2 | glass | 1 l |

  **Danger** H301+H332-H315-H317-H319-H340-H350-H361f-H372

ROTIPHORESE® Gel B

| | | |
|--------|-------|--------|
| 3039.2 | glass | 250 ml |
| 3039.1 | glass | 1 l |

 **Danger** H340-H350-H373

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The company is a limited partnership with headquarters in Karlsruhe, reg. court Mannheim HRA 100055. Roth Chemie GmbH, with headquarters in Karlsruhe, reg. court Mannheim HRB 100428, is the personally liable partner. Managing Director: André Houdelet. Sales tax identification number: DE 143621073.