

High internal phase emulsions were prepared as previously described (1). Emulsions were cast onto the glass support using casting blades with slits between 100 and 1000 µm. Data regarding glass plates: plates 25 cm x 25 cm x 2 cm by Schott (Mainz, Germany) type B 270, polished down to 1 µm surface roughness by Fotona, Ljubljana, Slovenia. Glass composition (as supplied by Schott, Germany): SiO<sub>2</sub> 68%, Na<sub>2</sub>O/K<sub>2</sub>O 17%, CaO 7%, BaO 2%, ZnO 4%, TiO<sub>2</sub> 1%, Sb<sub>2</sub>O<sub>3</sub> 1%. Contact angle of water 20° . Emulsions were immediately after spreading covered with a thin second glass plate (4 mm thickness, same composition and polishing as the supporting plate), cured at 60°C for 24 h and washed with water and ethanol. Reactions with amines (three fold excess of amines) were carried out in dimethylformamide for 24 h at 60°C (1a, 1b, 1c) or 90°C (2a, 2b, 2c). SEM images were obtained using FEI Quanta200 3D electron microscope. FTIR spectra were recorded on Perkin Elmer 1650 FT-IR. Water flux measurements were performed using a AMICON 8400 membrane cell (deionised water, 20°C).

Membrane thickness measurements: At least 10 measurements were taken for each membrane across the surface. Figures in parenthesis show the range of results and from all measurements an average was calculated.

| Membrane | monomers |         |         |         | Water phase (%) | thickness <sup>a</sup> (µm) |
|----------|----------|---------|---------|---------|-----------------|-----------------------------|
|          | St (%)   | DVB (%) | VBC (%) | EHA (%) |                 |                             |
| A1       | 80       | 20      | -       | -       | 80              | 270 (235-305)               |
| A2       | 95       | 5       | -       | -       | 80              | 205 (180-240)               |
| A3       | 98       | 2       | -       | -       | 80              | 240 (210-260)               |
| A4       | 99       | 1       | -       | -       | 80              | 215 (175-240)               |
| A5       | 95       | 5       | -       | -       | 75              | 30 (25-40)                  |
| A6       | 98       | 2       | -       | -       | 75              | 255 (225-285)               |
| A7       | 98       | 2       | -       | -       | 85              | 230 (215-255)               |
| A8       | 96       | 4       | -       | -       | 75              | 175 (160-205)               |
| A9       | 96       | 4       | -       | -       | 85              | 285 (160-205)               |
| A10      | 86       | 4       | -       | 10      | 75              | 345 (315-365)               |
| A11      | 76       | 4       | -       | 20      | 75              | 405 (385-430)               |
| A12      | 66       | 4       | -       | 30      | 75              | 250 (230-275)               |
| B1       | 47,5     | 5       | 47,5    | -       | 80              | 375 (345-405)               |
| B2       | 88       | 2       | 10      | -       | 80              | 200 (185-210)               |
| B3       | 78       | 2       | 20      | -       | 80              | 220 (205-245)               |
| B4       | 73       | 2       | 25      | -       | 75              | 225 (200-255)               |
| B5       | 86       | 4       | 10      | -       | 80              | 215 (195-235)               |
| B6       | 76       | 4       | 20      | -       | 80              | 215 (200-230)               |
| B7       | 71       | 4       | 25      | -       | 75              | 230 (205-255)               |

|    |    |   |    |    |    |               |
|----|----|---|----|----|----|---------------|
| B8 | 66 | 4 | 20 | 10 | 80 | 385 (365-405) |
| B9 | 56 | 4 | 20 | 20 | 80 | 430 (410-455) |

(1) P. Krajnc, J. F. Brown and N. R. Cameron, *Org. Lett.*, 2002, **4**, 2497-2500.

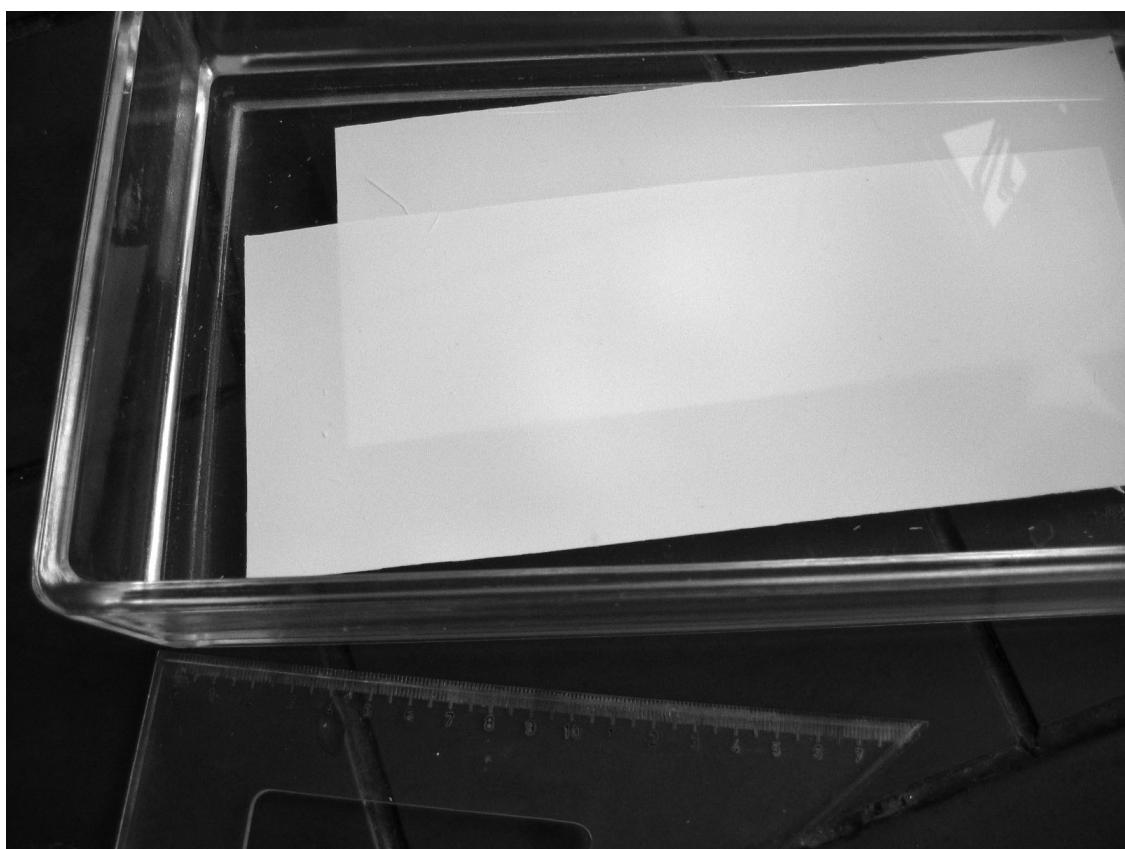


Image 1: polyHIPE membranes immersed in a bath



Image 2: casting blade