

# Monachijskie ciemne

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **23**
- SRM **25.1**
- Style **Munich Dunkel**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **18.6 liter(s)**
- Total mash volume **23.9 liter(s)**

## Steps

- Temp **67 C**, Time **70 min**
- Temp **78 C**, Time **15 min**

## Mash step by step

- Heat up **18.6 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **70 min** at **67C**
- Keep mash **15 min** at **78C**
- Sparge using **12 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

| Type                                   | Name   | Amount        | Yield | EBC  |
|--|--|---------------|-------|------|
| Grain                                  | Monachijski typ II<br>20-25 EBC<br>Weyermann | 4 kg (75.5%)  | 80 %  | 20   |
| Grain                                  | Weyermann -<br>Melanoiden Malt               | 0.5 kg (9.4%) | 81 %  | 53   |
| Grain                                  | Biscuit Malt                                 | 0.2 kg (3.8%) | 79 %  | 45   |
| Grain                                  | Weyermann -<br>Carafa I                      | 0.2 kg (3.8%) | 70 %  | 690  |
| Ciemne słydy dodać w 40 min zacierania |  |               |       |      |
| Grain                                  | Weyermann Specjal<br>W                       | 0.3 kg (5.7%) | 68 %  | 300  |
| Ciemne słydy dodać w 40 min zacierania |  |               |       |      |
| Grain                                  | Fawcett -<br>Pszeniczny<br>Czekoladowy       | 0.1 kg (1.9%) | 73 %  | 1001 |
| Ciemne słydy dodać w 40 min zacierania |  |               |       |      |

## Hops

| Use for | Name     | Amount | Time   | Alpha acid |
|---------|----------|--------|--------|------------|
| Boil    | Tettnang | 50 g   | 60 min | 4 %        |
| Boil    | Tettnang | 10 g   | 20 min | 4 %        |

## Yeasts

| Name  | Type  | Form | Amount | Laboratory |
|-------|-------|------|--------|------------|
| s-189 | Lager | Dry  | 11.5 g | fermentis  |