

Monachijskie ciemne

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **27**
- SRM **14**
- Style **Munich Dunkel**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **90 min**
- Evaporation rate **13 %/h**
- Boil size **30.1 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

Steps

- Temp **70 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **15 liter(s)** of strike water to **78.3C**
- Add grains
- Keep mash **60 min** at **70C**
- Keep mash **10 min** at **78C**
- Sparge using **20.1 liter(s)** of **76C** water or to achieve **30.1 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------------------------|--------------|-------|-----|
| Grain | Monachijski | 3 kg (60%) | 80 % | 16 |
| Grain | Pilzneński | 1 kg (20%) | 81 % | 4 |
| Grain | Monachijski Ciemny Steinbach | 0.35 kg (7%) | 100 % | 30 |
| Grain | Czekoladowy | 0.15 kg (3%) | 60 % | 900 |
| Grain | Strzegom Wiedeński | 0.5 kg (10%) | 79 % | 10 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------------------|--------|--------|------------|
| Boil | Perle | 20 g | 60 min | 7 % |
| Boil | Hallertau Tradition | 35 g | 30 min | 5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------------------------------|-------|-------|--------|------------|
| WLP800 - Pilsner Lager Yeast | Lager | Slant | 100 ml | White Labs |