

#18

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **37**
- SRM **29.4**
- Style **Dry Stout**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **2 %**
- Size with trub loss **20.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **23.3 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **14.7 liter(s)**
- Total mash volume **18.9 liter(s)**

Steps

- Temp **67 C**, Time **90 min**
- Temp **76 C**, Time **20 min**

Mash step by step

- Heat up **14.7 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **90 min** at **67C**
- Keep mash **20 min** at **76C**
- Sparge using **12.8 liter(s)** of **76C** water or to achieve **23.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------|---------------|-------|-----|
| Grain | Pilzneński | 2.9 kg (69%) | 81 % | 4 |
| Grain | Monachijski | 0.8 kg (19%) | 80 % | 16 |
| Grain | Barwiący | 0.2 kg (4.8%) | 55 % | 985 |
| Grain | Jęczmień palony | 0.3 kg (7.1%) | 55 % | 985 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil | Marynka | 30 g | 60 min | 10 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|----------------|------|-------|--------|------------|
| Danstar BRY-97 | Ale | Slant | 200 ml | danstar |