

Czarny Minionek 2.0

- Gravity **14.5 BLG**
- ABV **6 %**
- IBU **26**
- SRM **34.3**
- Style **Sweet Stout**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **20.3 liter(s)**
- Total mash volume **26.1 liter(s)**

Steps

- Temp **67 C**, Time **75 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **20.3 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **75 min** at **67C**
- Keep mash **1 min** at **78C**
- Sparge using **11.9 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-------------------------------|----------------|--------|------|
| Grain | IREKS Pilzneński | 4.5 kg (77.6%) | 80.5 % | 4 |
| Grain | Biscuit Malt | 0.4 kg (6.9%) | 79 % | 45 |
| Grain | Carahell | 0.3 kg (5.2%) | 77 % | 26 |
| Grain | Czekoladowy | 0.3 kg (5.2%) | 60 % | 1200 |
| Grain | Weyermann - Carafa Special II | 0.3 kg (5.2%) | 70 % | 1100 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-------|--------|--------|------------|
| Boil | lunga | 20 g | 45 min | 12.9 % |
| Boil | lunga | 10 g | 5 min | 12.9 % |

Extras

| Type | Name | Amount | Use for | Time |
|--------|-----------------|--------|---------|--------|
| Flavor | cacao w proszku | 10 g | Boil | 15 min |
| Flavor | laktoza | 500 g | Boil | 15 min |