

Redukcja Magazynu

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **11**
- SRM **24.9**
- Style **Sweet Stout**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **26.9 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.4 liter(s)**
- Total mash volume **21.8 liter(s)**

Steps

- Temp **45 C**, Time **10 min**
- Temp **51 C**, Time **10 min**
- Temp **62 C**, Time **40 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **0 min**

Mash step by step

- Heat up **16.4 liter(s)** of strike water to **49.2C**
- Add grains
- Keep mash **10 min** at **45C**
- Keep mash **10 min** at **51C**
- Keep mash **40 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **0 min** at **78C**
- Sparge using **16 liter(s)** of **76C** water or to achieve **26.9 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	4.5 kg (78.9%)	81 %	4
Grain	Monachijski	0.3 kg (5.3%)	80 %	16
Grain	Strzegom Karmel 150	0.15 kg (2.6%)	75 %	150
Grain	Czekoladowy	0.3 kg (5.3%)	60 %	788
Grain	Carafa II	0.2 kg (3.5%)	70 %	812
Adjunct	Milk Sugar (Lactose)	0.25 kg (4.4%)	76.1 %	0

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	5 g	60 min	10 %
Boil	Citra	10 g	15 min	12 %
Dry Hop	Perle	15 g	7 day(s)	7 %

Yeasts

Name	Type	Form	Amount	Laboratory
S04	Ale	Dry	10 g	---