

śrutujemy

- Gravity **15 BLG**
- ABV **6.2 %**
- IBU **22**
- SRM **29.9**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **13.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.8 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **11.7 liter(s)**
- Total mash volume **15.6 liter(s)**

Steps

- Temp **63 C**, Time **60 min**

Mash step by step

- Heat up **11.7 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **60 min** at **63C**
- Sparge using **8 liter(s)** of **76C** water or to achieve **15.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	colorado base	3.3 kg (84.6%)	79 %	7.5
Grain	Słód Kawowy 500 EBC	0.15 kg (3.8%)	75.5 %	420
Grain	Czekoladowy	0.15 kg (3.8%)	60 %	788
Grain	black bezmaltz	0.1 kg (2.6%)	55 %	1200
Grain	Słód Crystal 160	0.2 kg (5.1%)	73.5 %	160

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Pilgrim	5 g	60 min	10.3 %
Boil	Pilgrim	5 g	30 min	10.3 %
Boil	Pilgrim	5 g	45 min	10.3 %
Aroma (end of boil)	Pilgrim	35 g	0 min	10.3 %

Yeasts

Name	Type	Form	Amount	Laboratory
us05	Ale	Dry	5 g	bdb