

## Double Ale #2

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- Gravity **16.1 BLG**
- ABV **6.8 %**
- IBU **64**
- SRM **9.7**
- Style **American Brown Ale**

### Batch size

- Expected quantity of finished beer **180 liter(s)**
- Trub loss **5 %**
- Size with trub loss **189 liter(s)**
- Boil time **70 min**
- Evaporation rate **5 %/h**
- Boil size **211.5 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **2.85 liter(s) / kg**
- Mash size **140.2 liter(s)**
- Total mash volume **189.4 liter(s)**

### Steps

- Temp **64 C**, Time **40 min**
- Temp **72 C**, Time **30 min**

### Mash step by step

- Heat up **140.2 liter(s)** of strike water to **71.7C**
- Add grains
- Keep mash **40 min** at **64C**
- Keep mash **30 min** at **72C**
- Sparge using **120.5 liter(s)** of **76C** water or to achieve **211.5 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pale Ale Malt	31.5 kg (59.2%)	80 %	7
Grain	Strzegom Pszeniczny	6 kg (11.3%)	81 %	6
Grain	Briess - Pale Ale Malt	5 kg (9.4%)	80 %	7.5
Adjunct	Płatki owsiane	4 kg (7.5%)	60 %	3
Grain	Fawcett - Pszeniczny Czekoladowy	0.5 kg (0.9%)	73 %	1001
Grain	słód enzymatyczny	1.2 kg (2.3%)	76 %	10
Grain	Strzegom Monachijski typ I	5 kg (9.4%)	79 %	16

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	100 g	70 min	13.5 %
Boil	Magnat	100 g	70 min	11.2 %
Boil	lunga	200 g	70 min	11 %
Boil	Lublin (Lubelski)	250 g	5 min	4 %
Boil	Oktawia	170 g	10 min	7.1 %
Boil	Cascade PL	300 g	5 min	5.2 %

Whirlpool	Cascade PL	300 g	1 min	5.2 %
Whirlpool	Lublin (Lubelski)	250 g	1 min	4 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	100 g	Fermentis