

TRAWA

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **25**
- SRM **9.7**
- Style **American Brown Ale**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.1 liter(s)**
- Total mash volume **18.8 liter(s)**

Steps

- Temp **65 C**, Time **70 min**
- Temp **72 C**, Time **10 min**
- Temp **76 C**, Time **0 min**

Mash step by step

- Heat up **14.1 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **70 min** at **65C**
- Keep mash **10 min** at **72C**
- Keep mash **0 min** at **76C**
- Sparge using **18.4 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pszoniczny	2.5 kg (48%)	85 %	4
Grain	Strzegom Monachijski typ II	2 kg (38.4%)	79 %	22
Grain	Strzegom Karmel 300	0.212 kg (4.1%)	70 %	299
Sugar	CUKIER	0.5 kg (9.6%)	--- %	---

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnat	20 g	60 min	12.5 %
Aroma (end of boil)	Cascade PL	25 g	0 min	5.5 %
Dry Hop	Cascade PL	25 g	3 day(s)	5.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM13 Irlandzkie Ciemności	Ale	Slant	200 ml	---

Extras

Type	Name	Amount	Use for	Time
Spice	TRAWA CYTRYNOWA	15 g	Boil	10 min
Fining	MECH IRLANDZKI	4 g	Boil	10 min