

Brązowy Tragarz

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **19**
- SRM **29.8**
- Style **Brown Porter**

Batch size

- Expected quantity of finished beer **13.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **14.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **17.1 liter(s)**

Mash information

- Mash efficiency **68 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12 liter(s)**
- Total mash volume **16 liter(s)**

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Simpsons - Maris Otter	2.5 kg (62.5%)	81 %	6
Grain	Munich Malt	0.5 kg (12.5%)	80 %	45
Grain	Brown Malt (British Chocolate)	0.4 kg (10%)	70 %	450
Grain	Strzegom Monachijski typ II	0.25 kg (6.3%)	79 %	22
Grain	Simpsons - Golden Naked Oats	0.2 kg (5%)	73 %	20
Grain	Weyermann - Chocolate Rye	0.15 kg (3.8%)	20 %	1050

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Fuggles	30 g	60 min	4 %

Yeasts

Name	Type	Form	Amount	Laboratory
WLP004 - Irish Ale Yeast	Ale	Liquid	150 ml	White Labs