

## #70 Quadrupel

- Gravity **22.2 BLG**
- ABV **10 %**
- IBU **25**
- SRM **13.2**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **17 %/h**
- Boil size **28.5 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **25.5 liter(s)**
- Total mash volume **34 liter(s)**

### Steps

- Temp **64 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **30 min**

### Mash step by step

- Heat up **25.5 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **40 min** at **64C**
- Keep mash **20 min** at **72C**
- Keep mash **30 min** at **76C**
- Sparge using **11.5 liter(s)** of **76C** water or to achieve **28.5 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Wiedeński	4 kg (44.4%)	79 %	10
Grain	Strzegom Pilzneński	4 kg (44.4%)	80 %	4
Grain	Strzegom Czekoladowy ciemny	0.1 kg (1.1%)	68 %	1200
Grain	cookie	0.4 kg (4.4%)	--- %	---
Sugar	Cukier kandyzowany ciemny	0.5 kg (5.6%)	--- %	---

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Challenger	50 g	50 min	7 %
Boil	Saaz (Czech Republic)	30 g	5 min	4.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM 26	Ale	Slant	300 ml	Fermentum mobile