

## 15: KWACH

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- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **9**
- SRM **4.4**

### Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **11 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **13.2 liter(s)**

### Mash information

- Mash efficiency **68 %**
- Liquor-to-grist ratio **3.3 liter(s) / kg**
- Mash size **9.2 liter(s)**
- Total mash volume **12 liter(s)**

### Steps

- Temp **67 C**, Time **70 min**
- Temp **74 C**, Time **15 min**

### Mash step by step

- Heat up **9.2 liter(s)** of strike water to **74.2C**
- Add grains
- Keep mash **70 min** at **67C**
- Keep mash **15 min** at **74C**
- Sparge using **6.8 liter(s)** of **76C** water or to achieve **13.2 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	2 kg (71.4%)	81 %	4
Grain	Strzegom Wiedeński	0.6 kg (21.4%)	79 %	10
Grain	Płatki owsiane	0.2 kg (7.1%)	85 %	3

### Hops

Use for	Name	Amount	Time	Alpha acid
Whirlpool	Cascade PL	10 g	25 min	5.5 %
Whirlpool	idaho 7	5 g	25 min	12.3 %
Whirlpool	Chinook	15 g	0 min	13 %
Whirlpool	Simcoe	15 g	0 min	13.3 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	6 g	Fermentis

### Notes

- Warzone 7.01.2018. Kettle sour, dodane 7 kapsulek sanprobi ze szczepem lacto plantarum, bez startera, zakwaszone przez 40h. Moze owoce na cichą, obecnie fermentuje...  
04.02 tydzien w butli:  
Piana szybko opada, aromat ok, przyjemnie kwaśny, raczej czysty. Po ogrzaniu w smaku natomiast wychodzi okrutnik, bardzo nieprzyjemny smak. Ogólnie niepijalnie, nie wiem gdzie poszło nie tak...  
*Jan 11, 2018, 2:26 PM*