

## KPA #2 (Kruszyńskie Pale Ale)

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **28**
- SRM **11.1**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

### Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **32.2 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.5 liter(s)**
- Total mash volume **26 liter(s)**

### Steps

- Temp **67.5 C**, Time **70 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **19.5 liter(s)** of strike water to **75.4C**
- Add grains
- Keep mash **70 min** at **67.5C**
- Keep mash **10 min** at **78C**
- Sparge using **19.2 liter(s)** of **76C** water or to achieve **32.2 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale Zero 5-7,5 EBC	4.6 kg (70.8%)	80 %	7
Grain	Viking Karmelowy Jasny 30EBC	0.2 kg (3.1%)	75 %	30
Grain	Płatki owsiane	0.4 kg (6.2%)	85 %	3
Grain	Viking Munich Malt 18 EBC	1 kg (15.4%)	78 %	18
Grain	Weyramann Caraaroma (R) 300-400 EBC	0.3 kg (4.6%)	--- %	350

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	IUNGA 11,3 AA	14 g	55 min	11.3 %
Boil	Marynka 8,5 % aa	20 g	35 min	8.5 %
Boil	Lubelski 4,4 % aa	20 g	10 min	4.4 %
Aroma (end of boil)	Żatecki 3,21 % aa	30 g	0 min	3.21 %

### Yeasts

Name	Type	Form	Amount	Laboratory
------	------	------	--------	------------

Safale S-04	Ale	Dry	11.5 g	Safale
-------------	-----	-----	--------	--------

### Extras

Type	Name	Amount	Use for	Time
Water Agent	gips piwowarski	2.5 g	Mash	70 min
Fining	Whirifloe T	2.5 g	Boil	10 min