

## Smash v.3

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- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **21**
- SRM **12.4**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **29.5 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **27 liter(s)**

### Steps

- Temp **64 C**, Time **25 min**
- Temp **72 C**, Time **35 min**
- Temp **78 C**, Time **3 min**

### Mash step by step

- Heat up **21 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **25 min** at **64C**
- Keep mash **35 min** at **72C**
- Keep mash **3 min** at **78C**
- Sparge using **14.5 liter(s)** of **76C** water or to achieve **29.5 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (83.3%)	80 %	5
Grain	Strzegom Karmel 150	1 kg (16.7%)	75 %	150

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Cascade	25 g	60 min	8 %
Aroma (end of boil)	Cascade	25 g	3 min	8 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis