

## MS23

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- Gravity **18 BLG**
- ABV **7.7 %**
- IBU **70**
- SRM **9.9**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.7 liter(s)**

### Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.5 liter(s)**
- Total mash volume **26 liter(s)**

### Steps

- Temp **64 C**, Time **60 min**
- Temp **75 C**, Time **5 min**

### Mash step by step

- Heat up **19.5 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **5 min** at **75C**
- Sparge using **12.7 liter(s)** of **76C** water or to achieve **25.7 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3.5 kg (53.8%)	80 %	5
Grain	Pszeniczny	1.5 kg (23.1%)	85 %	4
Grain	Strzegom Wiedeński	1 kg (15.4%)	79 %	10
Grain	Strzegom Karmel 150	0.5 kg (7.7%)	75 %	150

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Eureka!	40 g	50 min	18 %
Aroma (end of boil)	Eureka!	30 g	3 min	18 %
Aroma (end of boil)	Eureka!	30 g	1 min	18 %
Aroma (end of boil)	Sorachi Ace	50 g	1 min	10 %

### Yeasts

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