

## MS13 Jaś

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- Gravity **17.1 BLG**
- ABV **7.3 %**
- IBU **37**
- SRM **31.6**
- Style **Sweet Stout**

### Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **3 %**
- Size with trub loss **25.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **28.4 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **28 liter(s)**

### Steps

- Temp **68 C**, Time **60 min**

### Mash step by step

- Heat up **21 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Sparge using **14.4 liter(s)** of **76C** water or to achieve **28.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (66.7%)	80 %	5
Grain	Strzegom pszenica prażona	0.5 kg (6.7%)	70 %	1000
Grain	Caraaroma	0.5 kg (6.7%)	78 %	400
Grain	Pszeniczny	1 kg (13.3%)	85 %	4
Sugar	Milk Sugar (Lactose)	0.5 kg (6.7%)	76.1 %	0

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	50 g	50 min	10 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	10.5 g	Safale