

## MS10

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- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **36**
- SRM **30.8**
- 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 **10 %/h**
- Boil size **30.6 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **24 liter(s)**

### Steps

- Temp **68 C**, Time **60 min**
- Temp **75 C**, Time **10 min**

### Mash step by step

- Heat up **18 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **75C**
- Sparge using **18.6 liter(s)** of **76C** water or to achieve **30.6 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (76.9%)	80 %	5
Grain	Strzegom Czekoladowy jasny	0.5 kg (7.7%)	1 %	400
Grain	Strzegom pszenica prażona	0.5 kg (7.7%)	70 %	1000
Adjunct	Milk Sugar (Lactose)	0.5 kg (7.7%)	100 %	0

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	50 g	35 min	10 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's -M15 Empire Ale	Ale	Dry	10 g	Mangrove Jack's