

drajstaut

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **21**
- SRM **30.3**
- Style **Dry Stout**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.5 liter(s)**
- Total mash volume **22.5 liter(s)**

Steps

- Temp **67 C**, Time **80 min**
- Temp **70 C**, Time **10 min**
- Temp **77 C**, Time **10 min**

Mash step by step

- Heat up **17.5 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **80 min** at **67C**
- Keep mash **10 min** at **70C**
- Keep mash **10 min** at **77C**
- Sparge using **12.8 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3.5 kg (70%)	80 %	5
Grain	Strzegom Monachijski typ II	1 kg (20%)	79 %	22
Grain	Jęczmień palony	0.25 kg (5%)	55 %	985
Grain	Strzegom Czekoladowy ciemny	0.25 kg (5%)	68 %	1200

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Fuggles	35 g	60 min	4.5 %
Boil	Fuggles	15 g	15 min	4.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's -M15 Empire Ale	Ale	Dry	11.5 g	Mangrove Jack's