

## Dry Stout (z Radkiem)

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **28**
- SRM **26.5**
- 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 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 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 **15 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **80 min** at **67C**
- Keep mash **10 min** at **70C**
- Keep mash **10 min** at **77C**
- Sparge using **15.3 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	Monachijski typ II 20-25 EBC Weyermann	1 kg (20%)	80 %	20
Grain	Jęczmień palony	0.25 kg (5%)	55 %	985
Grain	Czekoladowy	0.25 kg (5%)	60 %	788

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Hallertau Tradition	50 g	60 min	5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM13 Irlandzkie Ciemności	Ale	Liquid	40 ml	Fermentum Mobile

### Extras

Type	Name	Amount	Use for	Time
Fining	Whirlfloc	0.5 g	Boil	15 min

## Notes

- whirlfloc 0.5 tabletki  
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