

## Dry Stout (Czarnuch)

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **44**
- SRM **31.8**
- 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 **24.2 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.9 liter(s)**
- Total mash volume **18.5 liter(s)**

### Steps

- Temp **67 C**, Time **90 min**
- Temp **72 C**, Time **10 min**
- Temp **76 C**, Time **1 min**

### Mash step by step

- Heat up **13.9 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **90 min** at **67C**
- Keep mash **10 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **14.9 liter(s)** of **76C** water or to achieve **24.2 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3 kg (64.9%)	80 %	6
Grain	Monachijski	1 kg (21.6%)	80 %	16
Grain	Strzegom Czekoladowy ciemny	0.1 kg (2.2%)	68 %	1200
Wrzucony przy 72°C				
Grain	Strzegom Czekoladowy jasny	0.1 kg (2.2%)	68 %	400
Wrzucony przy 72°C				
Grain	Jęczmień palony	0.32 kg (6.9%)	55 %	985
Wrzucony przy 72°C				
Grain	Carafa II	0.05 kg (1.1%)	70 %	812
Wrzucony przy 72°C				
Grain	Carafa III	0.05 kg (1.1%)	70 %	1034
Wrzucony przy 72°C				

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	50 g	50 min	7.8 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	Safale

## Extras

Type	Name	Amount	Use for	Time
Fining	Whirlfloc	0.5 g	Boil	5 min

## Notes

- [https://www.wiki.piwo.org/Dry\\_Stout\\_\(Czarnuch\),\\_Kamil\\_Soluch\\_\(Cartmann\)](https://www.wiki.piwo.org/Dry_Stout_(Czarnuch),_Kamil_Soluch_(Cartmann))

Słody palone zostały wrzucone przy 72°C.  
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