

## Stout v3 #53

- Gravity **15.4 BLG**
- ABV **6.5 %**
- IBU **66**
- SRM **37.6**
- Style **American Stout**

### Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **75 min**
- Evaporation rate **12 %/h**
- Boil size **26.6 liter(s)**

### Mash information

- Mash efficiency **78.3 %**
- Liquor-to-grist ratio **3.39 liter(s) / kg**
- Mash size **20 liter(s)**
- Total mash volume **25.9 liter(s)**

### Steps

- Temp **66 C**, Time **60 min**
- Temp **76 C**, Time **7 min**

### Mash step by step

- Heat up **20 liter(s)** of strike water to **72.8C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **7 min** at **76C**
- Sparge using **12.5 liter(s)** of **76C** water or to achieve **26.6 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking - pilzneński	4.5 kg (71.4%)	80 %	4
Grain	płatki jęczmienne	0.4 kg (6.3%)	70 %	4
Grain	Chateau - Crystal	0.35 kg (5.6%)	78 %	150
Grain	Fawcett - czekoladowy pszeniczny	0.45 kg (7.1%)	72.7 %	1000
Grain	Weyermann - Carafa III special	0.2 kg (3.2%)	65 %	1400
po zakończeniu przerwy w 66C				
Adjunct	śliwka suszona Agen (FRA)	0.4 kg (6.3%)	37 %	8

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Warrior	25 g	60 min	14.7 %
Aroma (end of boil)	Galaxy	20 g	10 min	14.5 %
Aroma (end of boil)	Cascade AUS	45 g	10 min	7.3 %
Aroma (end of boil)	Perle szyszka mokra	40 g	10 min	6 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM52 Amerykański Sen	Ale	Slant	250 ml	Fermentum Mobile
gęstwa dosyć stara - 26 dniowa				

### Extras

Type	Name	Amount	Use for	Time
Water Agent	gips	1 g	Mash	---
Water Agent	węglan wapnia	9 g	Mash	---
Water Agent	sól epsom	2 g	Mash	60 min
Water Agent	kwas mlekowy [ml]	1.95 g	Mash	---
Water Agent	chlerek wapnia [ml]	1.72 g	Mash	60 min
Fining	mech irlandzki	3 g	Boil	10 min
Flavor	śliwka suszona	400 g	Boil	20 min

### Notes

- dawka Perle jest w przeliczeniu na suchy granulat (przelicznik 1/5)  
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