

## Afrykańskie Noce #3

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **38**
- SRM **39.6**
- Style **American Stout**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **27.2 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.3 liter(s) / kg**
- Mash size **18.1 liter(s)**
- Total mash volume **23.6 liter(s)**

### Steps

- Temp **53 C**, Time **10 min**
- Temp **66 C**, Time **40 min**
- Temp **71 C**, Time **20 min**
- Temp **77 C**, Time **5 min**

### Mash step by step

- Heat up **18.1 liter(s)** of strike water to **58C**
- Add grains
- Keep mash **10 min** at **53C**
- Keep mash **40 min** at **66C**
- Keep mash **20 min** at **71C**
- Keep mash **5 min** at **77C**
- Sparge using **14.6 liter(s)** of **76C** water or to achieve **27.2 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale	3 kg (54.5%)	79 %	7
Grain	Strzegom Monachijski typ II	1 kg (18.2%)	79 %	22
Grain	Castle Cafe	0.5 kg (9.1%)	75.5 %	480
Grain	Strzegom Karmel 300	0.3 kg (5.5%)	70 %	299
Grain	Strzegom Czekoladowy ciemny	0.25 kg (4.5%)	68 %	1200
Grain	Jęczmień palony	0.25 kg (4.5%)	55 %	985
Grain	Viking Przeniczny	0.2 kg (3.6%)	81 %	5

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Simcoe	30 g	50 min	13.3 %
Aroma (end of boil)	Simcoe	20 g	0 min	13.3 %
Dry Hop	Amarillo	5 g	3 day(s)	9.3 %
Dry Hop	Cascade	5 g	3 day(s)	7.1 %

Dry Hop	Citra	5 g	3 day(s)	14.2 %
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### Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis

### Extras

Type	Name	Amount	Use for	Time
Flavor	espresso	400 g	Primary	0 day(s)