

## #3 Czarnuchu - Z01-A03-11/2017

- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **53**
- SRM **32.8**
- Style **Dry Stout**

### Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **0 %**
- Size with trub loss **10 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **12.1 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **8 liter(s)**
- Total mash volume **10.3 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 **8 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **90 min** at **67C**
- Keep mash **10 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **6.4 liter(s)** of **76C** water or to achieve **12.1 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	1.5 kg (65.8%)	79 %	6
Grain	Strzegom Monachijski typ I	0.5 kg (21.9%)	79 %	16
Grain	Strzegom Czekoladowy ciemny	0.1 kg (4.4%)	68 %	1200
Grain	Jęczmień palony	0.18 kg (7.9%)	55 %	985

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	20 g	60 min	10 %
Aroma (end of boil)	Cascade	10 g	10 min	6 %

### Yeasts

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

### Notes

- Słody palone wrzucone przy 73 stopniach po przeprowadzeniu próby jodowej.  
*Jan 7, 2018, 12:49 AM*