

Ropa Naftowa

- Gravity **16.6 BLG**
- ABV **7 %**
- IBU **49**
- SRM **40.3**
- Style **Foreign Extra Stout**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **14.1 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.08 liter(s) / kg**
- Mash size **11 liter(s)**
- Total mash volume **14.6 liter(s)**

Steps

- Temp **63 C**, Time **40 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **11 liter(s)** of strike water to **70C**
- Add grains
- Keep mash **40 min** at **63C**
- Keep mash **30 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **6.7 liter(s)** of **76C** water or to achieve **14.1 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	1.3 kg (36.4%)	85 %	7
Grain	Casle Malting Whisky Nature	1.4 kg (39.2%)	85 %	4
Grain	Caraaroma	0.221 kg (6.2%)	78 %	400
Grain	Weyermann - Carafa I	0.15 kg (4.2%)	70 %	690
Grain	Strzegom Czekoladowy 1200	0.15 kg (4.2%)	68 %	1202
Grain	Oats, Flaked	0.15 kg (4.2%)	80 %	2
Grain	Pszeniczny	0.1 kg (2.8%)	85 %	4
Grain	Jęczmień palony	0.1 kg (2.8%)	55 %	985

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	25 g	60 min	10.5 %
Boil	Lublin (Lubelski)	12 g	20 min	3.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM13 Irlandzkie Ciemności	Ale	Liquid	500 ml	Fermentum Mobile