

## #149 Nic na siłę

- Gravity **22 BLG**
- ABV **9.9 %**
- IBU **29**
- SRM **25.4**
- Style **Baltic Porter**

### Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **6 %**
- Size with trub loss **15.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **6 %/h**
- Boil size **17.1 liter(s)**

### Mash information

- Mash efficiency **78.2 %**
- Liquor-to-grist ratio **3.3 liter(s) / kg**
- Mash size **20.1 liter(s)**
- Total mash volume **26.2 liter(s)**

### Steps

- Temp **52 C**, Time **5 min**
- Temp **66 C**, Time **40 min**
- Temp **72 C**, Time **35 min**
- Temp **78 C**, Time **3 min**

### Mash step by step

- Heat up **20.1 liter(s)** of strike water to **56.9C**
- Add grains
- Keep mash **5 min** at **52C**
- Keep mash **40 min** at **66C**
- Keep mash **35 min** at **72C**
- Keep mash **3 min** at **78C**
- Sparge using **3.1 liter(s)** of **76C** water or to achieve **17.1 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Słód pilzneński	1.95 kg (32%)	80 %	3.5
Grain	Słód monachijski	3.7 kg (60.7%)	80 %	16
Grain	Słód karmelowy jasny	0.2 kg (3.3%)	80 %	150
Grain	Słód karmelowy ciemny	0.15 kg (2.5%)	80 %	600
Grain	Barwiący	0.1 kg (1.6%)	55 %	1250

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka PL	30 g	60 min	8.6 %
Aroma (end of boil)	Lubelski PL	15 g	5 min	3 %

### Yeasts

Name	Type	Form	Amount	Laboratory
New World Strong Ale M42 Mangrove Jack's	Ale	Dry	20 g	Mangrove