

## #11 Mikołaj Jurli i Reniferka Angelika

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- Gravity **15.2 BLG**
- ABV **6.3 %**
- IBU ---
- SRM **27**
- Style **Christmas/Winter Specialty Spiced Beer**

### Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.5 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.1 liter(s) / kg**
- Mash size **20 liter(s)**
- Total mash volume **26.4 liter(s)**

### Steps

- Temp **52 C**, Time **10 min**
- Temp **62 C**, Time **25 min**
- Temp **72 C**, Time **45 min**
- Temp **77 C**, Time **0 min**

### Mash step by step

- Heat up **20 liter(s)** of strike water to **57.2C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **25 min** at **62C**
- Keep mash **45 min** at **72C**
- Keep mash **0 min** at **77C**
- Sparge using **13 liter(s)** of **76C** water or to achieve **26.5 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński CH	3.55 kg (55%)	81 %	4
Grain	Bio Pale Ale	0.55 kg (8.5%)	80 %	5
Grain	Pszeniczny	1 kg (15.5%)	85 %	4
Grain	Carahell	0.2 kg (3.1%)	77 %	26
Grain	Carabelge	0.15 kg (2.3%)	80 %	30
Grain	Caraaroma	0.25 kg (3.9%)	78 %	400
Grain	Jęczmień palony	0.35 kg (5.4%)	55 %	1100
Grain	Płatki owsiane	0.4 kg (6.2%)	85 %	3