

# Letniak

- Gravity **9 BLG**
- ABV **3.5 %**
- IBU **18**
- SRM **4**
- Style **Saison**

## Batch size

- Expected quantity of finished beer **45 liter(s)**
- Trub loss **5 %**
- Size with trub loss **47.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **57.4 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **25.5 liter(s)**
- Total mash volume **34 liter(s)**

## Steps

- Temp **64 C**, Time **60 min**
- Temp **78 C**, Time **15 min**

## Mash step by step

- Heat up **25.5 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **15 min** at **78C**
- Sparge using **40.4 liter(s)** of **76C** water or to achieve **57.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Płatki żytnie	0.5 kg (5.9%)	1 %	4
Grain	Viking Wheat Malt	3 kg (35.3%)	83 %	5
Grain	Viking Vienna Malt	3 kg (35.3%)	79 %	7
Grain	Pale Ale	1 kg (11.8%)	80 %	4.5
Grain	Monachijski	1 kg (11.8%)	80 %	16

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Mistral	50 g	20 min	5.5 %
Boil	Strisselspalt	50 g	20 min	2.4 %
Aroma (end of boil)	Mistral	50 g	5 min	5.5 %
Aroma (end of boil)	Strisselspalt	50 g	5 min	2.4 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM21 Odkrycie sezonu	Ale	Liquid	500 ml	Fermentum Mobile

## Extras

Type	Name	Amount	Use for	Time
Other	Płatki żytnie	500 g	Mash	60 min
Spice	Skórki słodkiej pomarańczy	40 g	Boil	15 min

## Notes

- płatki żytnie kleikowanie  
mash-out do 76-78°C  
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