

# ND ant ISP kolaboration Grill PILS

- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **46**
- SRM **3.4**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **26.8 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.7 liter(s)**
- Total mash volume **19.6 liter(s)**

## Steps

- Temp **50 C**, Time **10 min**
- Temp **65 C**, Time **50 min**
- Temp **78 C**, Time **15 min**

## Mash step by step

- Heat up **14.7 liter(s)** of strike water to **55C**
- Add grains
- Keep mash **10 min** at **50C**
- Keep mash **50 min** at **65C**
- Keep mash **15 min** at **78C**
- Sparge using **17 liter(s)** of **76C** water or to achieve **26.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	4.5 kg (83.3%)	81 %	4
Grain	Słód zakwaszający	0.2 kg (3.7%)	--- %	4
Grain	Słód krótki	0.2 kg (3.7%)	--- %	---
Adjunct	Płatki ryżowe	0.5 kg (9.3%)	--- %	---

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Nectaron NZ	40 g	45 min	12.3 %
Aroma (end of boil)	Mandarina Bavaria	50 g	0 min	10 %

## Yeasts

Name	Type	Form	Amount	Laboratory
34/70	Lager	Slant	100 ml	---

## Notes

- Fermentacja 5 dni w 11 st.  
Od 6 fermentacja w 19 st przez 6 dni  
Potem lagerowanie ochładzamy po 1 st. dziennie do 5 st.  
*May 8, 2021, 4:27 PM*