

PILS NIEMIECKI

- Gravity **10.5 BLG**
- ABV **4.2 %**
- IBU **42**
- SRM **8**
- Style **Bohemian Pilsener**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **27.6 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.8 liter(s)**
- Total mash volume **18.4 liter(s)**

Steps

- Temp **51 C**, Time **10 min**
- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **2 min**

Mash step by step

- Heat up **13.8 liter(s)** of strike water to **56.2C**
- Add grains
- Keep mash **10 min** at **51C**
- Keep mash **30 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **2 min** at **78C**
- Sparge using **18.4 liter(s)** of **76C** water or to achieve **27.6 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------|---------------|-------|-----|
| Grain | Pilzneński | 2 kg (43.5%) | 81 % | 4 |
| Grain | Monachijski | 2 kg (43.5%) | 80 % | 16 |
| Grain | Płatki owsiane | 0.4 kg (8.7%) | 85 % | 3 |
| Grain | Crystal II 200 | 0.2 kg (4.3%) | 71 % | 200 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-------------------|--------|--------|------------|
| Boil | Magnum | 25 g | 60 min | 13.5 % |
| Boil | Lublin (Lubelski) | 10 g | 15 min | 4 % |
| Aroma (end of boil) | Lublin (Lubelski) | 15 g | 5 min | 4 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------------------|-------|------|--------|------------|
| Saflager W 34/70 | Lager | Dry | 22.5 g | Fermentis |

Extras

| Type | Name | Amount | Use for | Time |
|--------|-------------|--------|---------|--------|
| Fining | whirlfloc t | 1.2 g | Boil | 10 min |