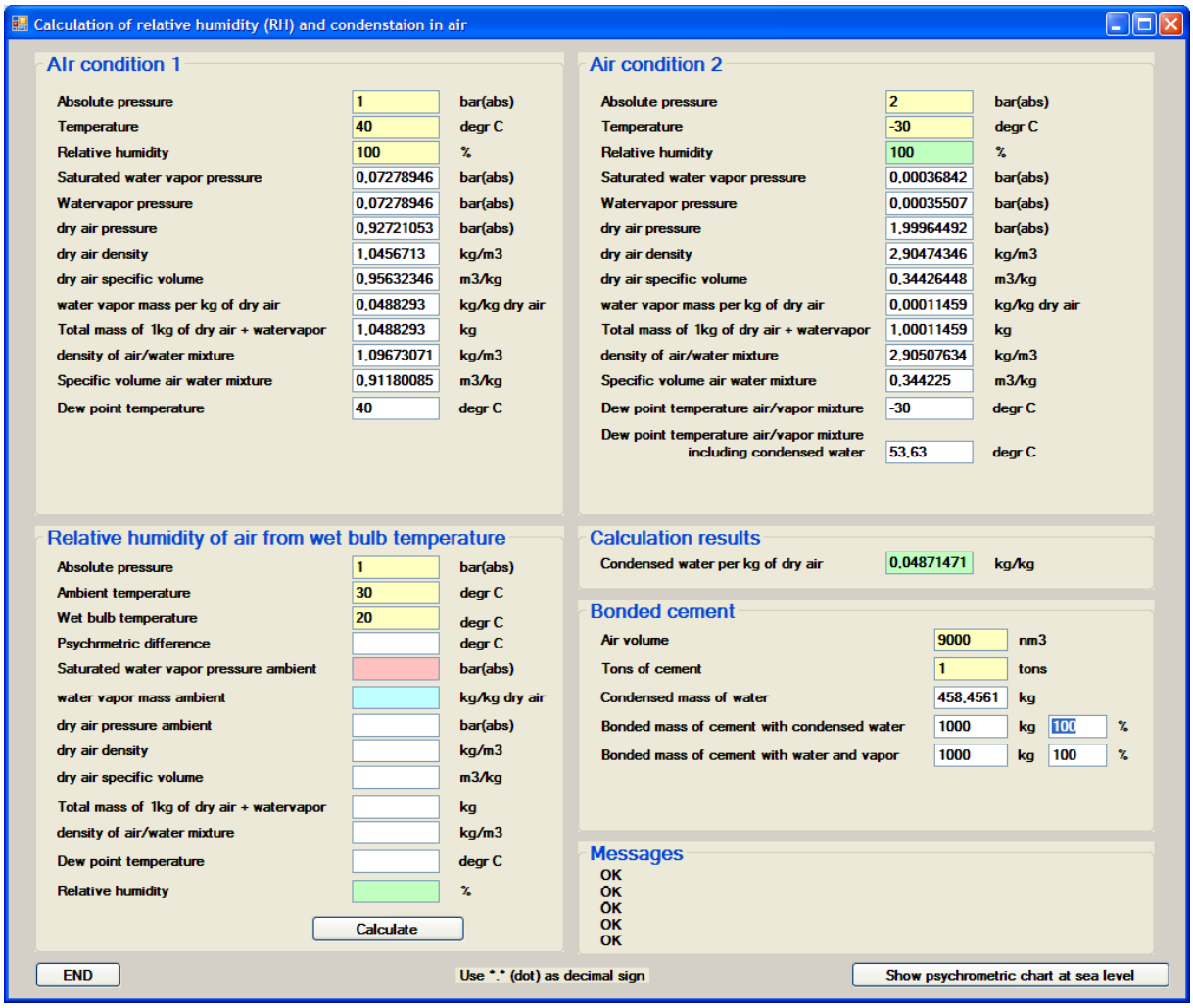
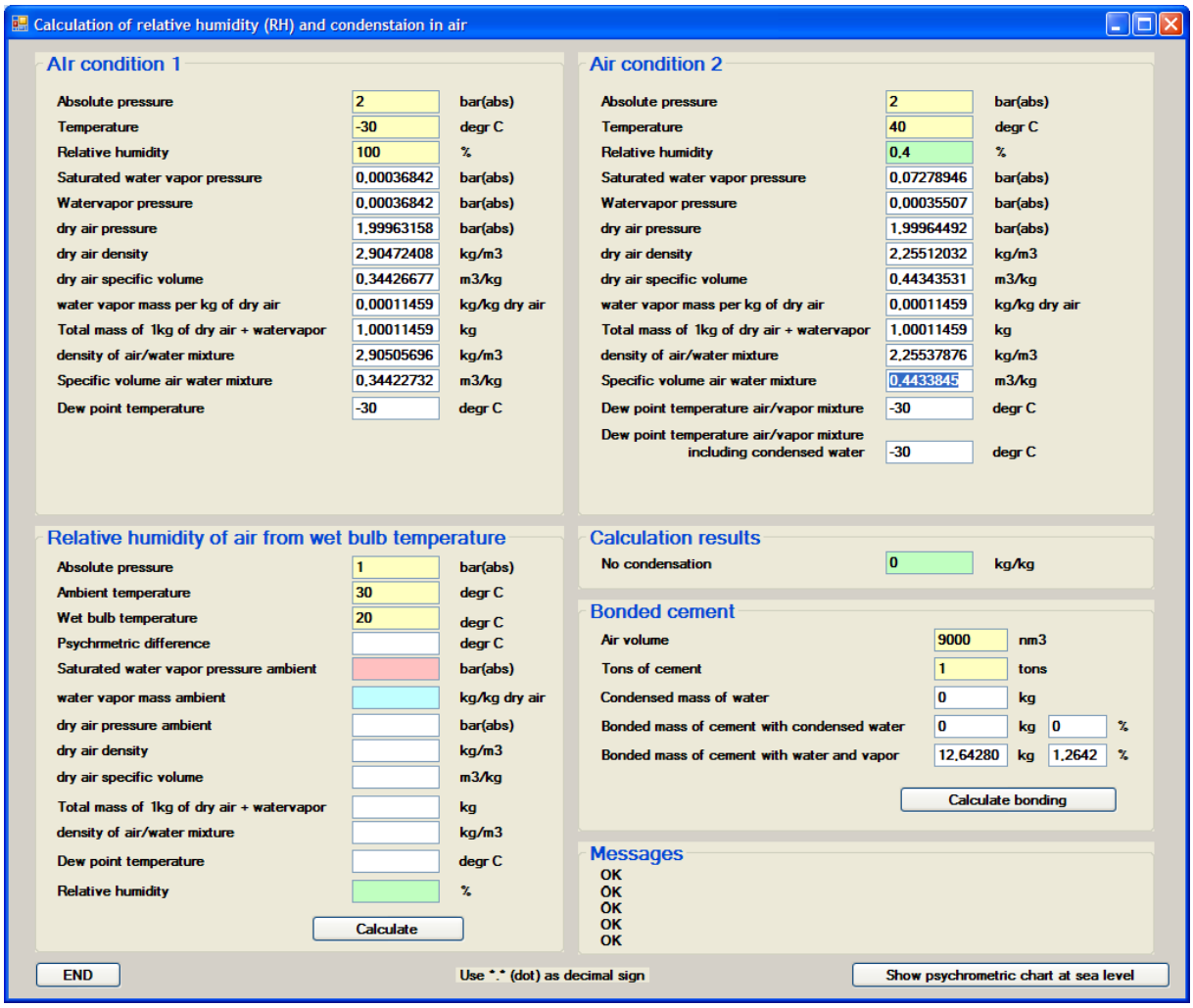

Calculation of relative humidity (RH) and condenstaion in air
AIr condition 1
Absolute pressure 1 bar(abs)
Temperature 40 degr C
Relative humidity 100 %
Saturated water vapor pressure 0,07278946 bar(abs)
Watervapor pressure 0,07278946 bar(abs)
dry air pressure 0,92721053 bar(abs)
dry air density 1,0456713 kg/m3
dry air specific volume 0,95632346 m3/kg
water vapor mass per kg of dry air 0,0488293 kg/kg dry air
Total mass of 1kg of dry air + watervapor 1,0488293 kg
density of air/water mixture 1,09673071 kg/m3
Specific volume air water mixture 0,91180085 m3/kg
Dew point temperature 40 degr C
Air condition 2
Absolute pressure 2 bar(abs)
Temperature -30 degr C
Relative humidity 100 %
Saturated water vapor pressure 0,00036842 bar(abs)
Watervapor pressure 0,00035507 bar(abs)
dry air pressure 1,99964492 bar(abs)
dry air density 2,90474346 kg/m3
dry air specific volume 0,34426448 m3/kg
water vapor mass per kg of dry air 0,00011459 kg/kg dry air
Total mass of 1kg of dry air + watervapor 1,00011459 kg
density of air/water mixture 2,90507634 kg/m3
Specific volume air water mixture 0,344225 m3/kg
Dew point temperature air/vapor mixture -30 degr C
Dew point temperature air/vapor mixture including condensed water 53,63 degr C
Relative humidity of air from wet bulb temperature
Absolute pressure 1 bar(abs)
Ambient temperature 30 degr C
Wet bulb temperature 20 degr C
Psychrmetric difference degr C
Saturated water vapor pressure ambient bar(abs)
water vapor mass ambient kg/kg dry air
dry air pressure ambient bar(abs)
dry air density kg/m3
dry air specific volume m3/kg
Total mass of 1kg of dry air + watervapor kg
density of air/water mixture kg/m3
Dew point temperature degr C
Relative humidity %
Calculate
Calculation results
Condensed water per kg of dry air 0,04871471 kg/kg
Bonded cement
Air volume 9000 nm3
Tons of cement 1 tons
Condensed mass of water 458,4561 kg
Bonded mass of cement with condensed water 1000 kg 100 %
Bonded mass of cement with water and vapor 1000 kg 100 %
Messages
OK
OK
OK
OK
OK
END
Use "." (dot) as decimal sign
Show psychrometric chart at sea level


Calculation of relative humidity (RH) and condenstaion in air
AIr condition 1
Absolute pressure 2 bar(abs)
Temperature -30 degr C
Relative humidity 100 %
Saturated water vapor pressure 0,00036842 bar(abs)
Watervapor pressure 0,00036842 bar(abs)
dry air pressure 1,99963158 bar(abs)
dry air density 2,90472408 kg/m3
dry air specific volume 0,34426677 m3/kg
water vapor mass per kg of dry air 0,00011459 kg/kg dry air
Total mass of 1kg of dry air + watervapor 1,00011459 kg
density of air/water mixture 2,90505696 kg/m3
Specific volume air water mixture 0,34422732 m3/kg
Dew point temperature -30 degr C
Air condition 2
Absolute pressure 2 bar(abs)
Temperature 40 degr C
Relative humidity 0,4 %
Saturated water vapor pressure 0,07278946 bar(abs)
Watervapor pressure 0,00035507 bar(abs)
dry air pressure 1,99964492 bar(abs)
dry air density 2,25512032 kg/m3
dry air specific volume 0,44343531 m3/kg
water vapor mass per kg of dry air 0,00011459 kg/kg dry air
Total mass of 1kg of dry air + watervapor 1,00011459 kg
density of air/water mixture 2,25537876 kg/m3
Specific volume air water mixture 0,4433845 m3/kg
Dew point temperature air/vapor mixture -30 degr C
Dew point temperature air/vapor mixture including condensed water -30 degr C
Relative humidity of air from wet bulb temperature
Absolute pressure 1 bar(abs)
Ambient temperature 30 degr C
Wet bulb temperature 20 degr C
Psychrmetric difference degr C
Saturated water vapor pressure ambient bar(abs)
water vapor mass ambient kg/kg dry air
dry air pressure ambient bar(abs)
dry air density kg/m3
dry air specific volume m3/kg
Total mass of 1kg of dry air + watervapor kg
density of air/water mixture kg/m3
Dew point temperature degr C
Relative humidity %
Calculate
Calculation results
No condensation 0 kg/kg
Bonded cement
Air volume 9000 nm3
Tons of cement 1 tons
Condensed mass of water 0 kg
Bonded mass of cement with condensed water 0 kg 0 %
Bonded mass of cement with water and vapor 12,64280 kg 1,2642 %
Calculate bonding
Messages
OK
OK
OK
OK
OK
END
Use "." (dot) as decimal sign
Show psychrometric chart at sea level