BMBF-Projekt Innorad

Projektsitzung am 16.11.2009
IFT, Universität Stuttgart

Prof. Wehking
Christian Vorwerk
Markus Schröppel
Manuel Weber

TOP Treffen am 16.11.2009

10:30 Begrüßung

10:45 Diskussion Protokoll letzte Sitzung

11:00 Vorstellung der Arbeitsergebnisse der Projektpartner Uni

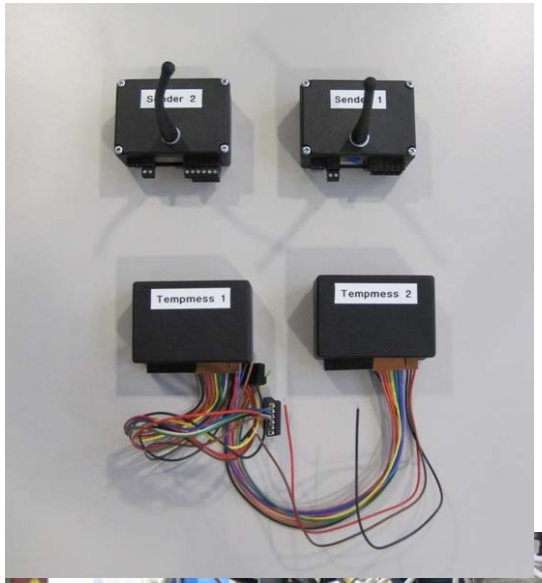
11:45 Arbeitsergebnisse der Projektpartner-Industrie

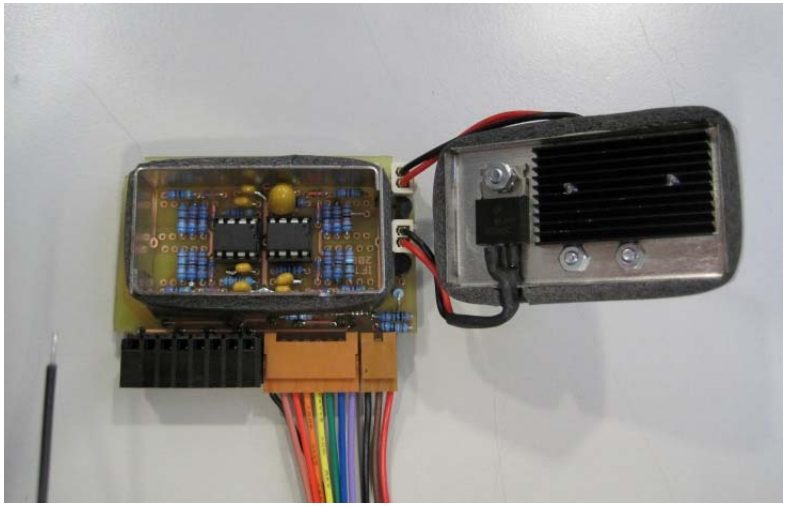
12:30 Mittagessen

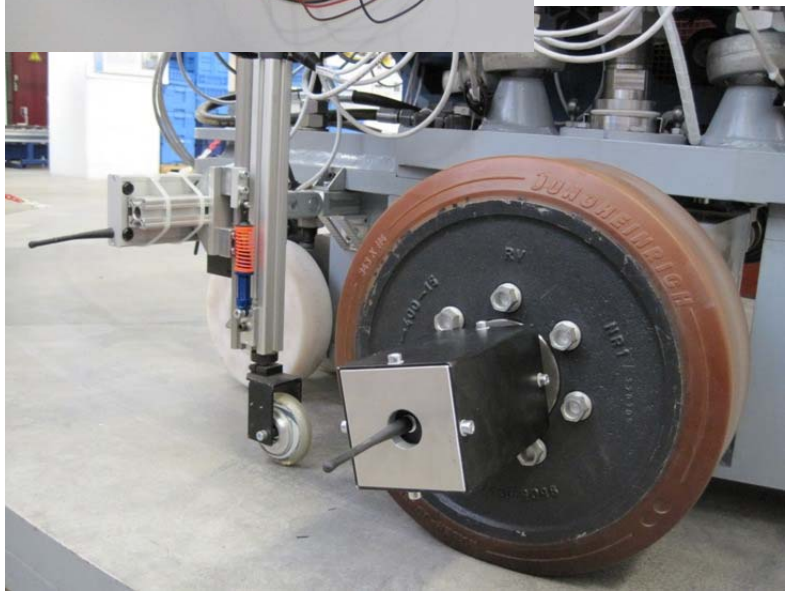
13:30 Diskussion Arbeitsergebnisse
Besprechung weiteres Vorgehen

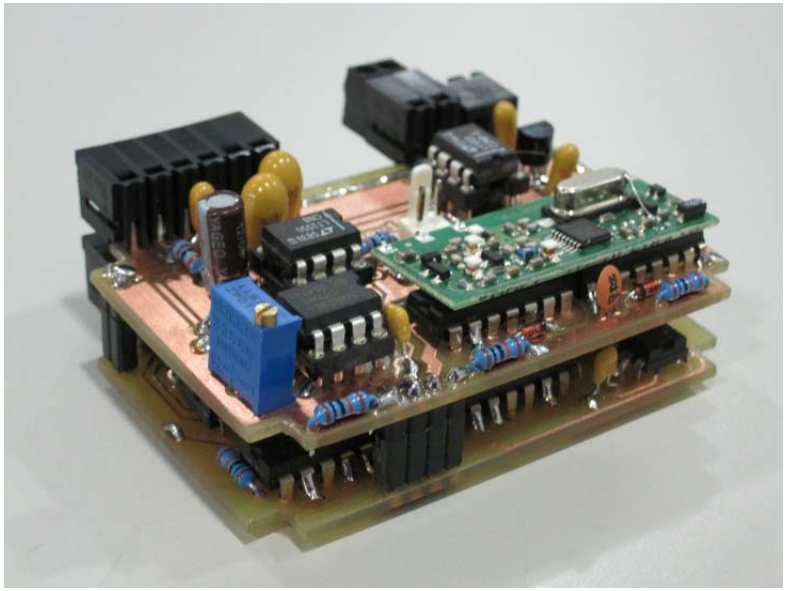
15:30 Ende

BMBF-Projekt Innorad: Temperaturerfassungssystem



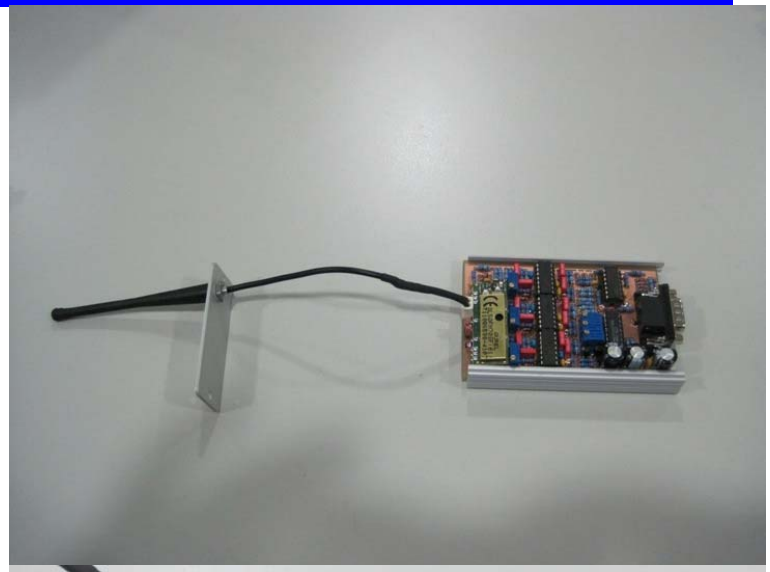


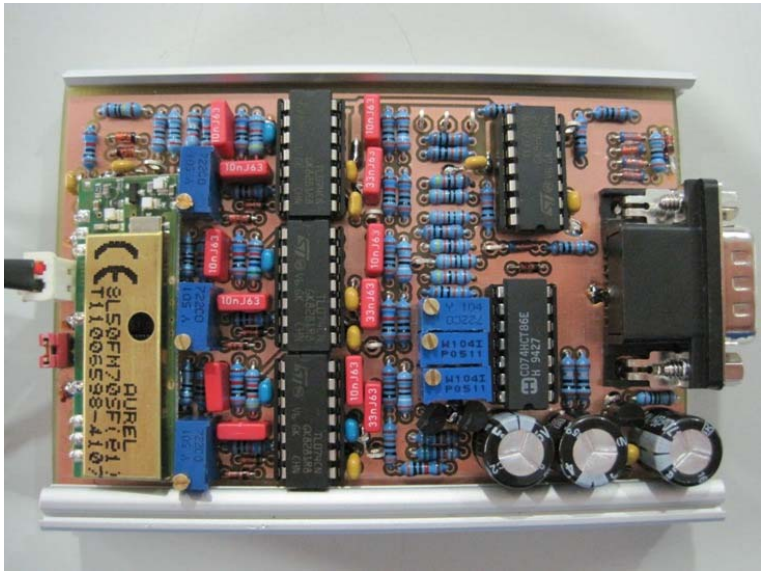


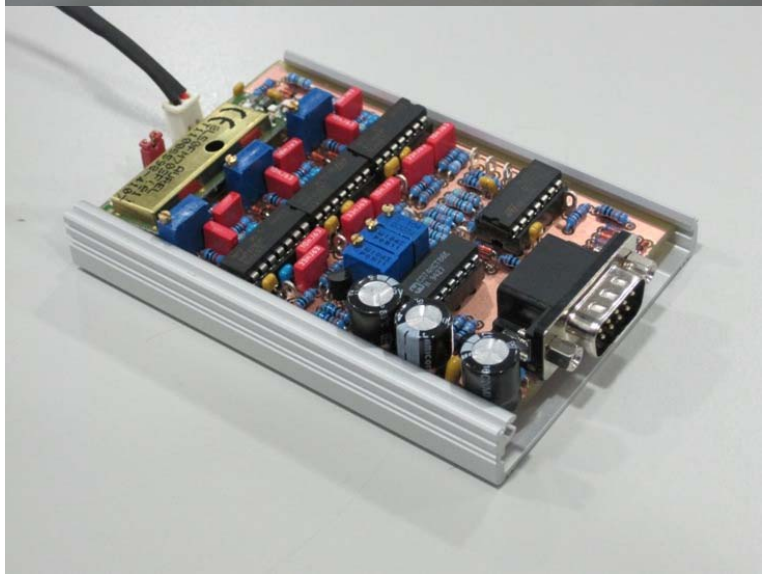


BMBF-Projekt Innorad: Temperaturerfassungssystem

Empfänger







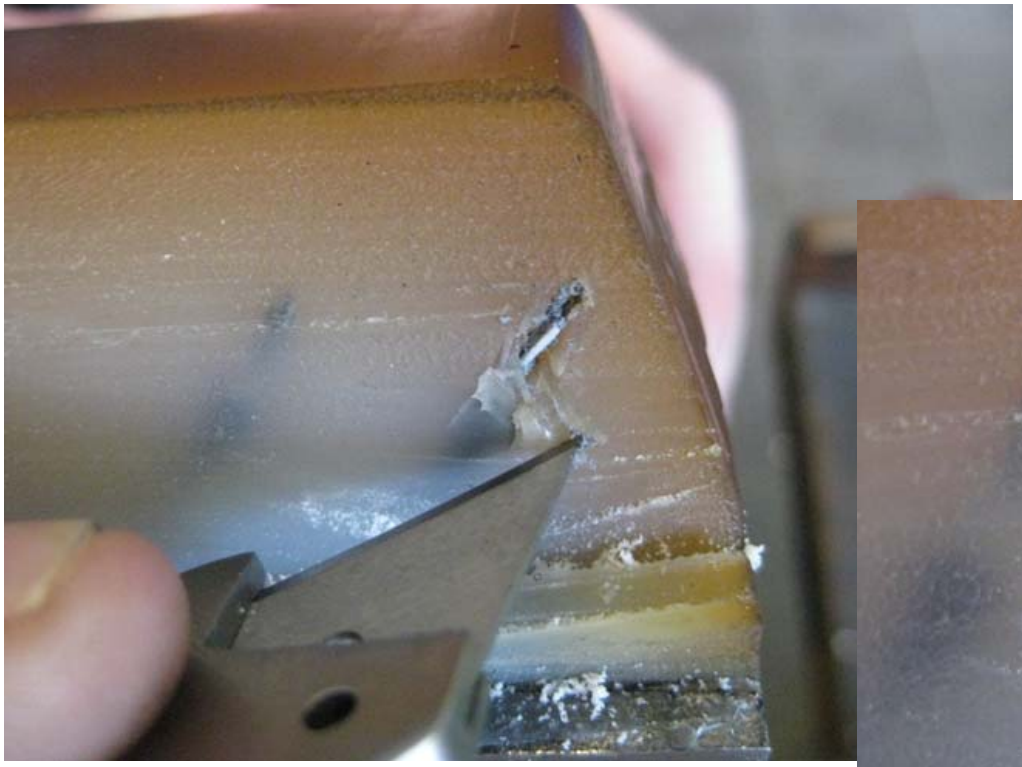
BMBF-Projekt Innorad: Temperaturerfassung

Fertigung der Bohrungen in die Felge/Bandage



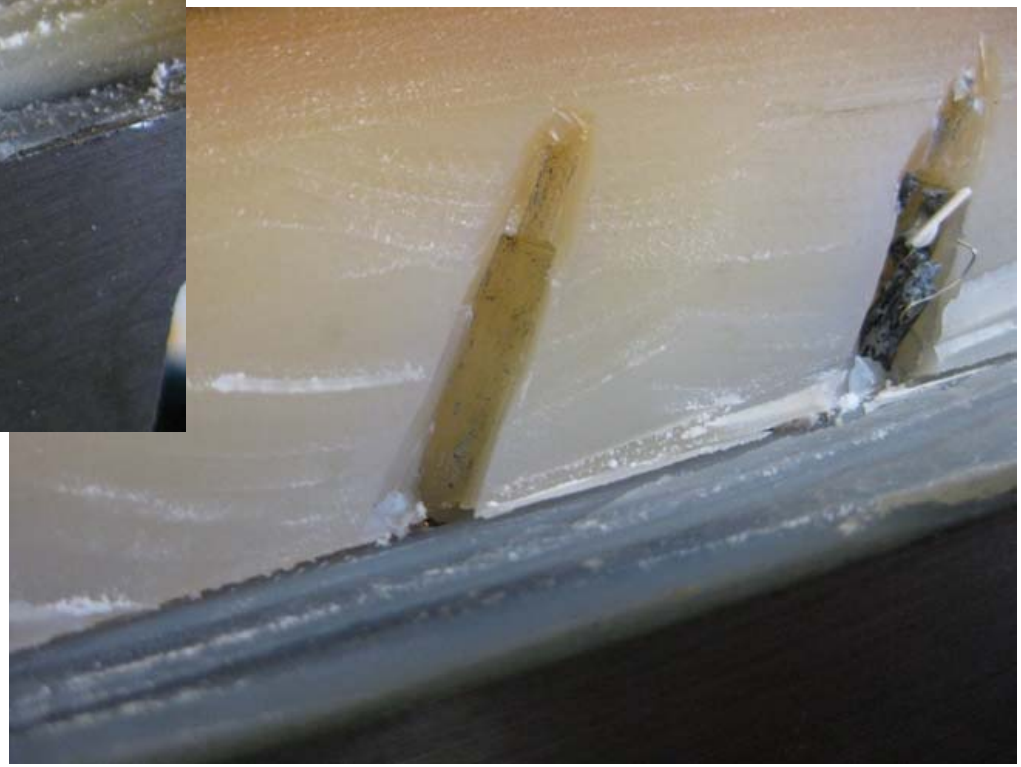
BMBF-Projekt Innorad: Temperaturerfassung

Problem Versagen der Sensoren



BMBF-Projekt Innorad: Temperaturerfassung

Sensoren werden in Längsrichtung durch Einfederung der Bandage belastet



Dies führt zum Bruch der Anschlussdrähte

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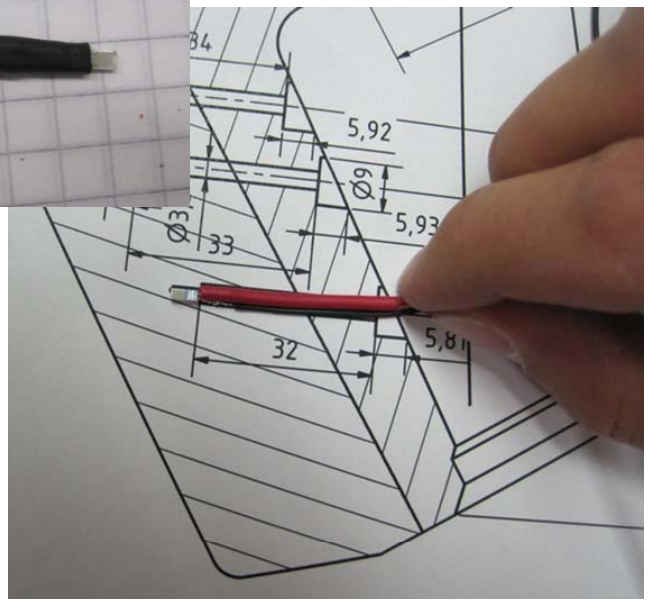
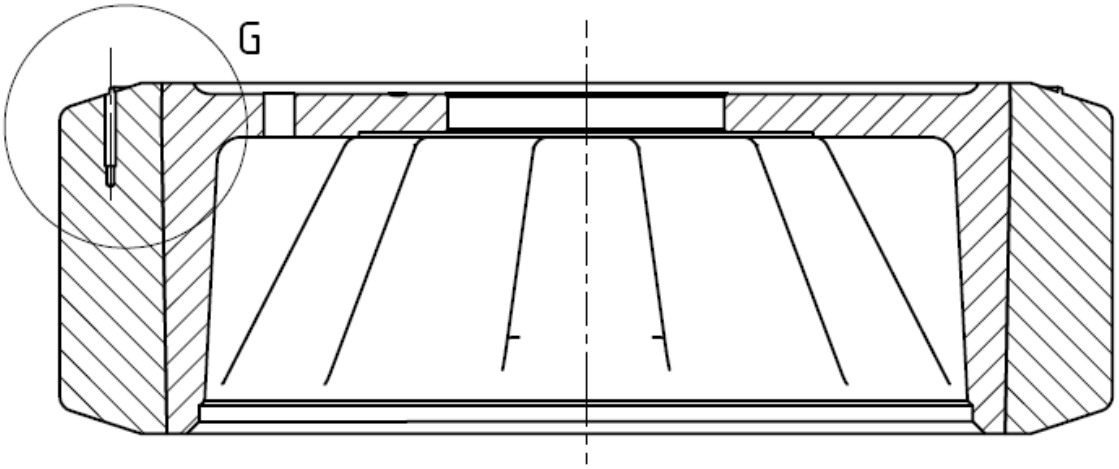
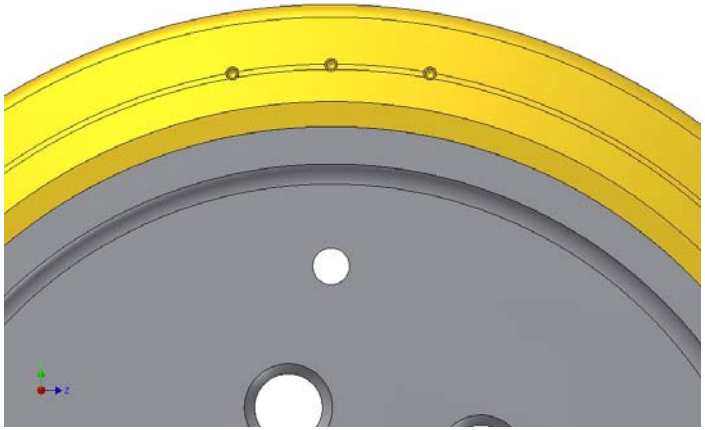
Verschiedene Anschlussvarianten der Sensoren

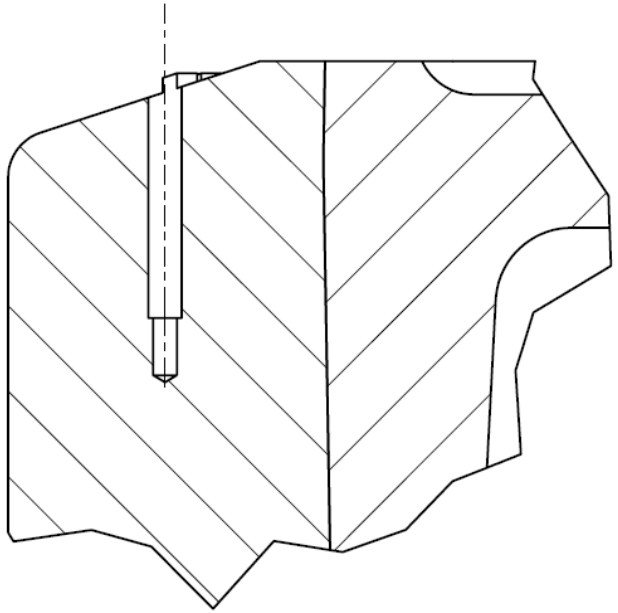


BMBF-Projekt Innorad: Temperaturerfassung

Neue Idee: Querbohrungen in der Bandage zum Einbringen der Sensoren; dadurch keine Längsbelastung der Sensoren







BMBF-Projekt Innorad: Prüfbedingung

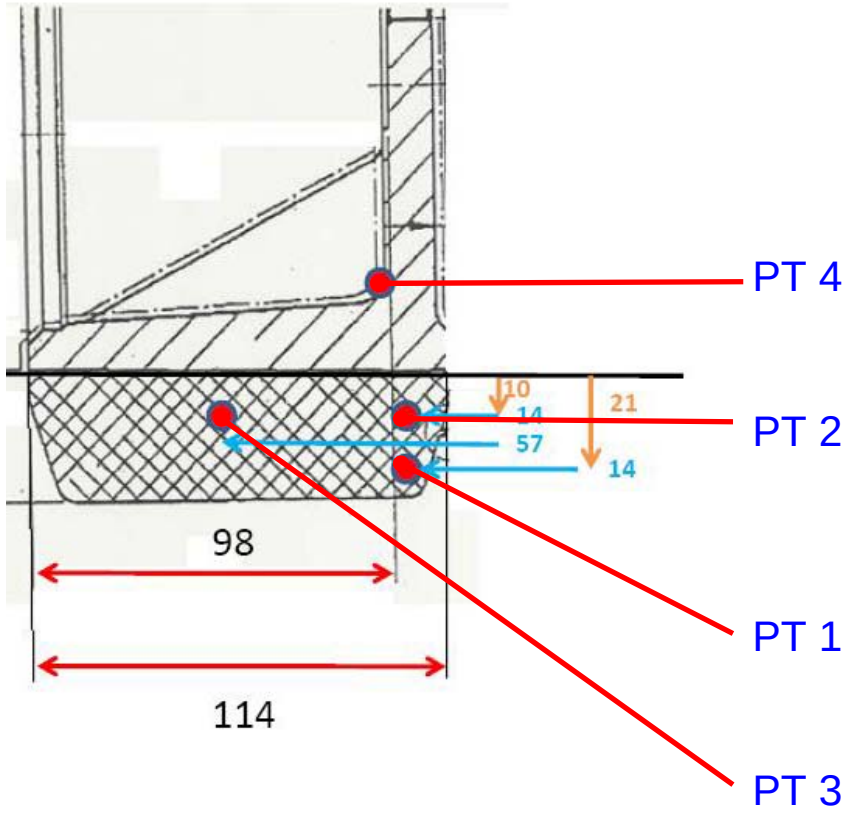
2 Verschiedene Prüfbedingungen

- Konstante Fahrt mit 10km/h bei 25000N Radlast
  Ermittlung von Beharrungstemperaturen und Abkühlkurven

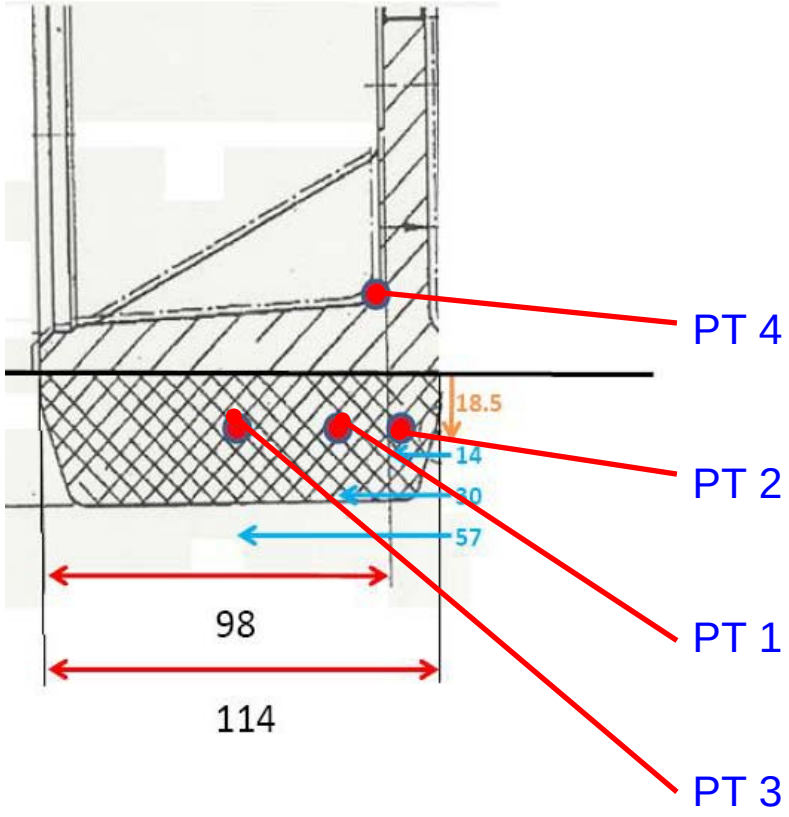
- Konstante Fahrt mit 16km/h bei 30000N Radlast
  Zerstörung des Rades

BMBF-Projekt InnoRad: Messstellen

Variante A



Variante B

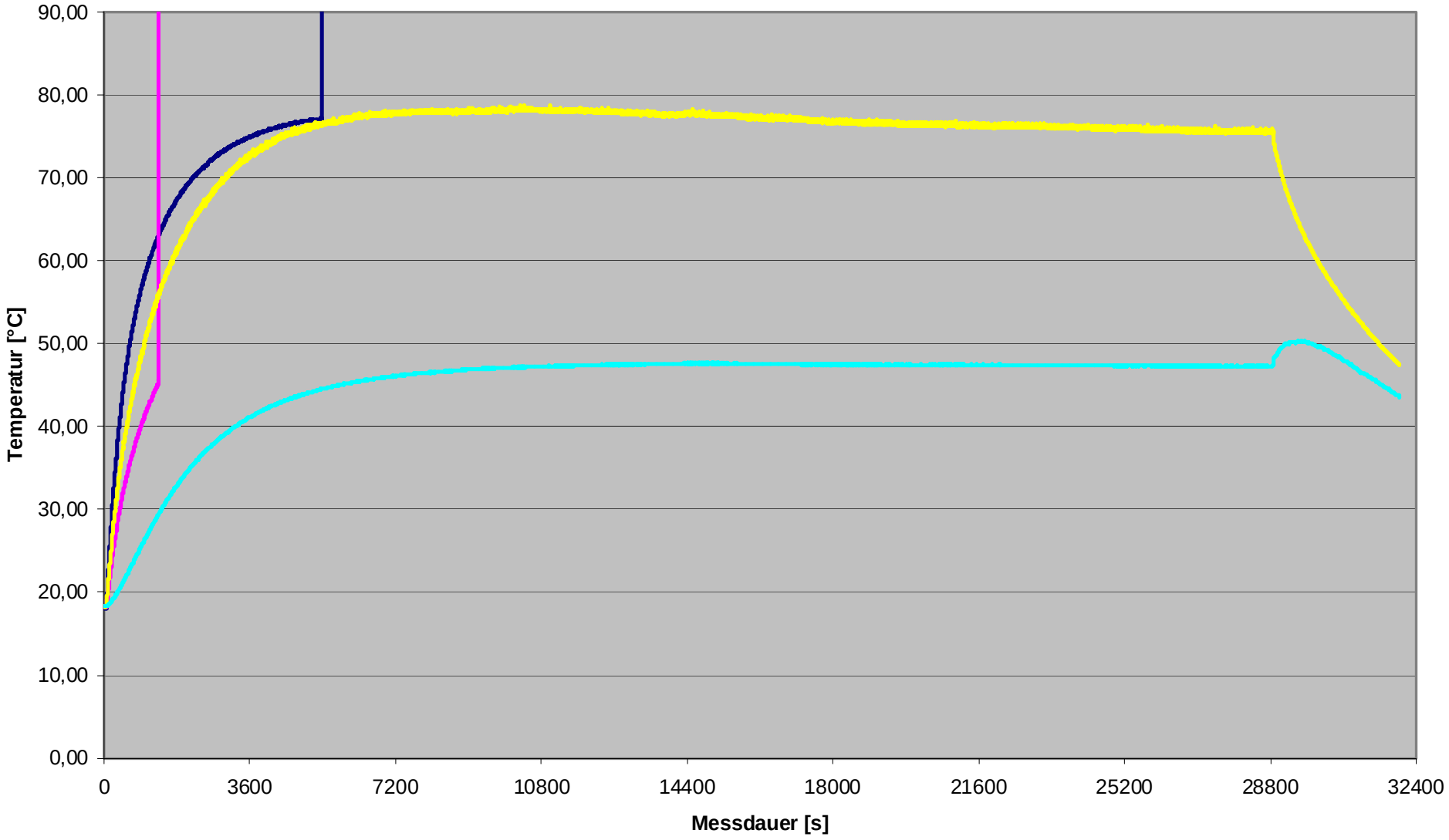


BMBF-Projekt Innorad: Prüfbedingung

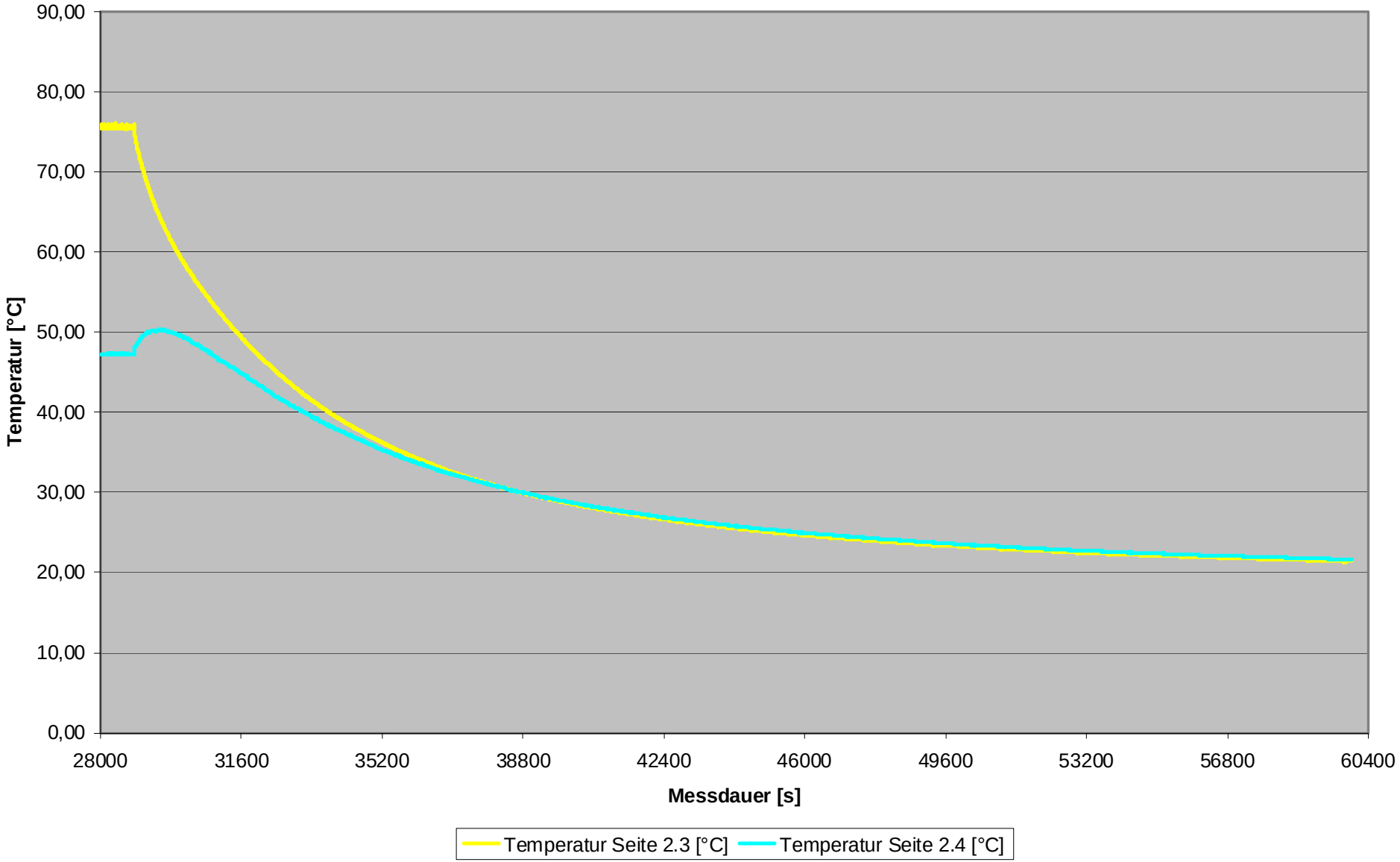
Konstante Fahrt mit 10km/h bei 25000N Radlast

Ermittlung von Beharrungstemperaturen und Abkühlkurven

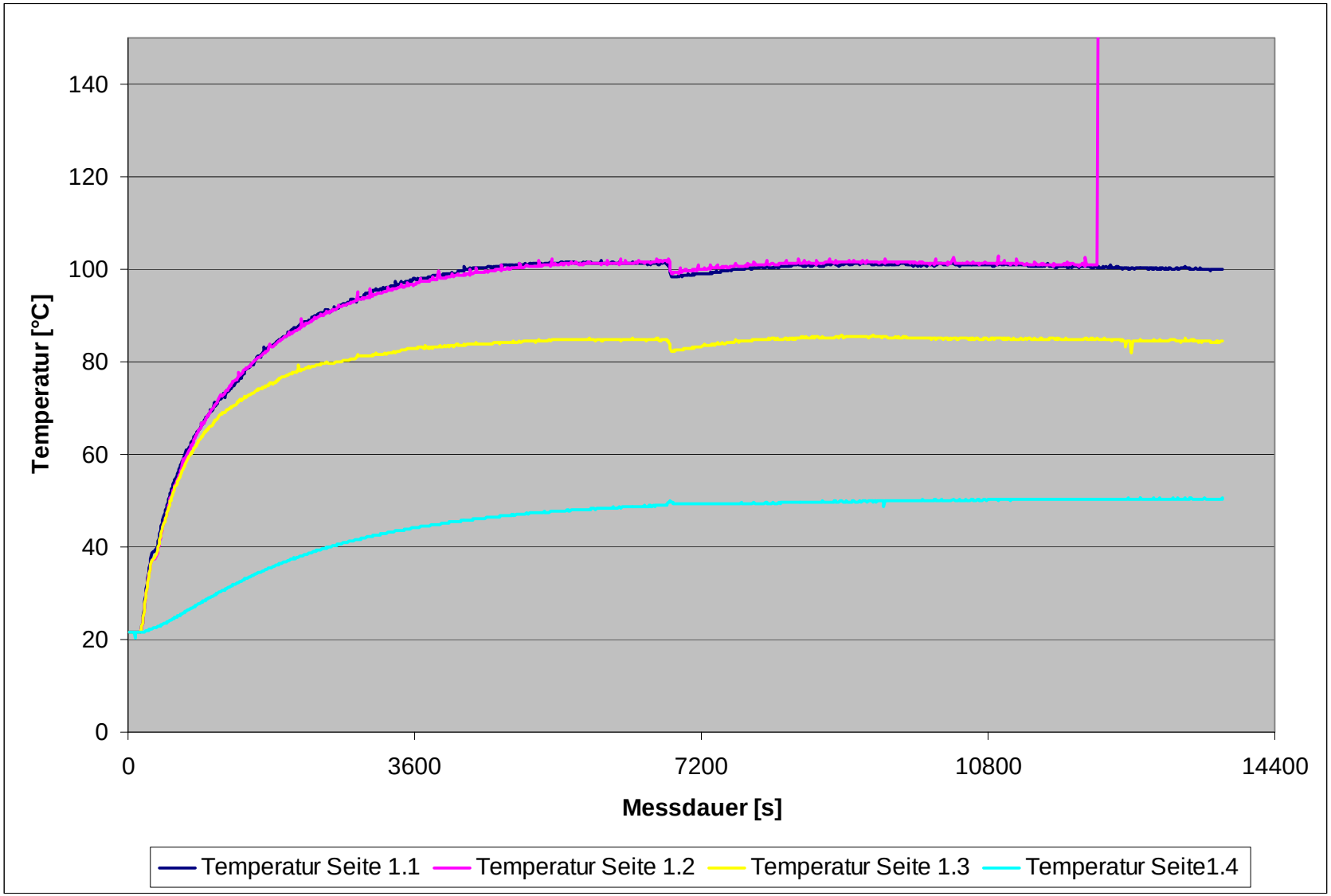
Rad R0012 aktuelles Rad: 25kN/10 km/h, TempV.:A Erwärmung



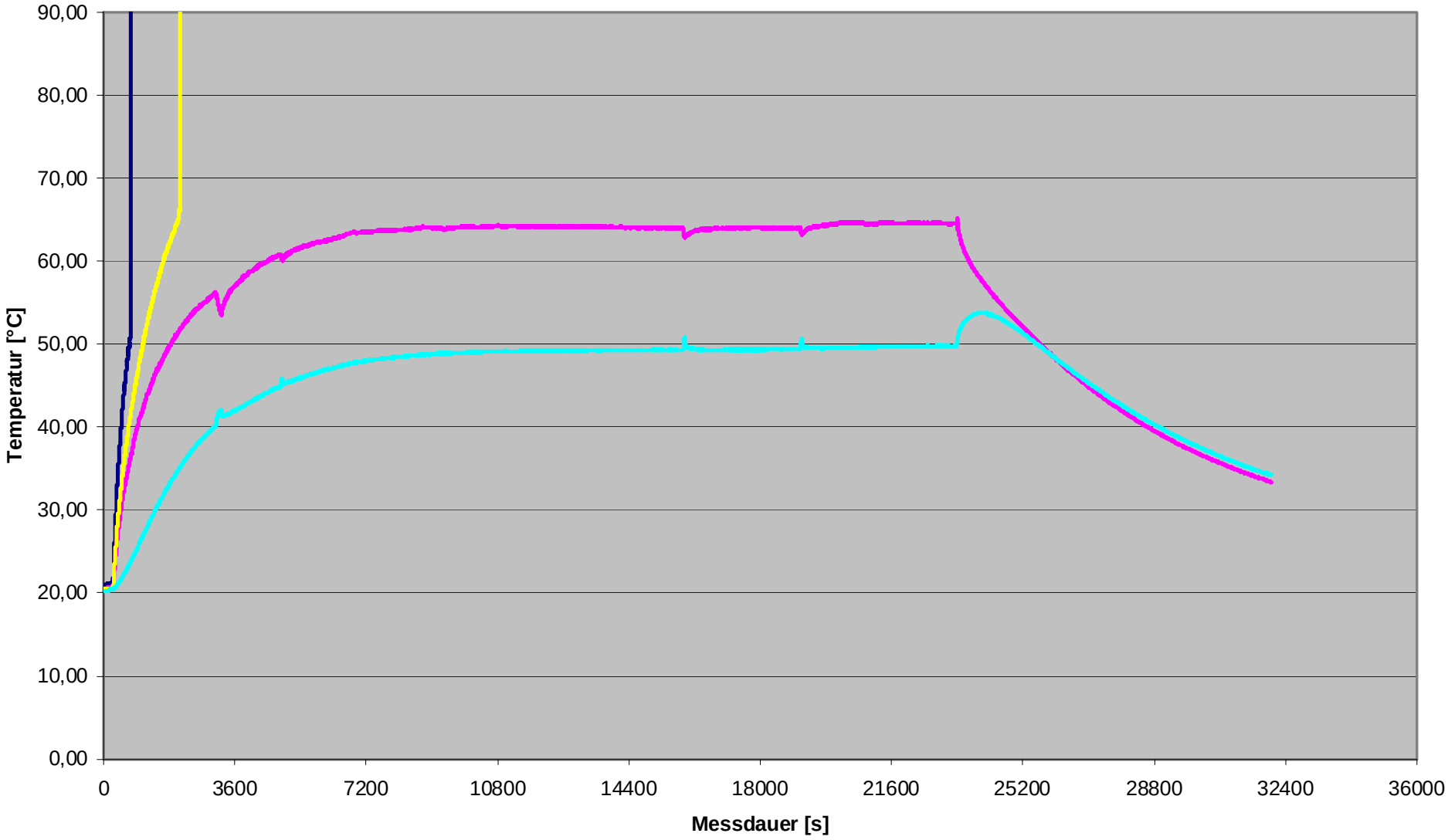
Rad R0012 aktuelles Rad: 25kN/10 km/h, TempV.:A Abkühlung



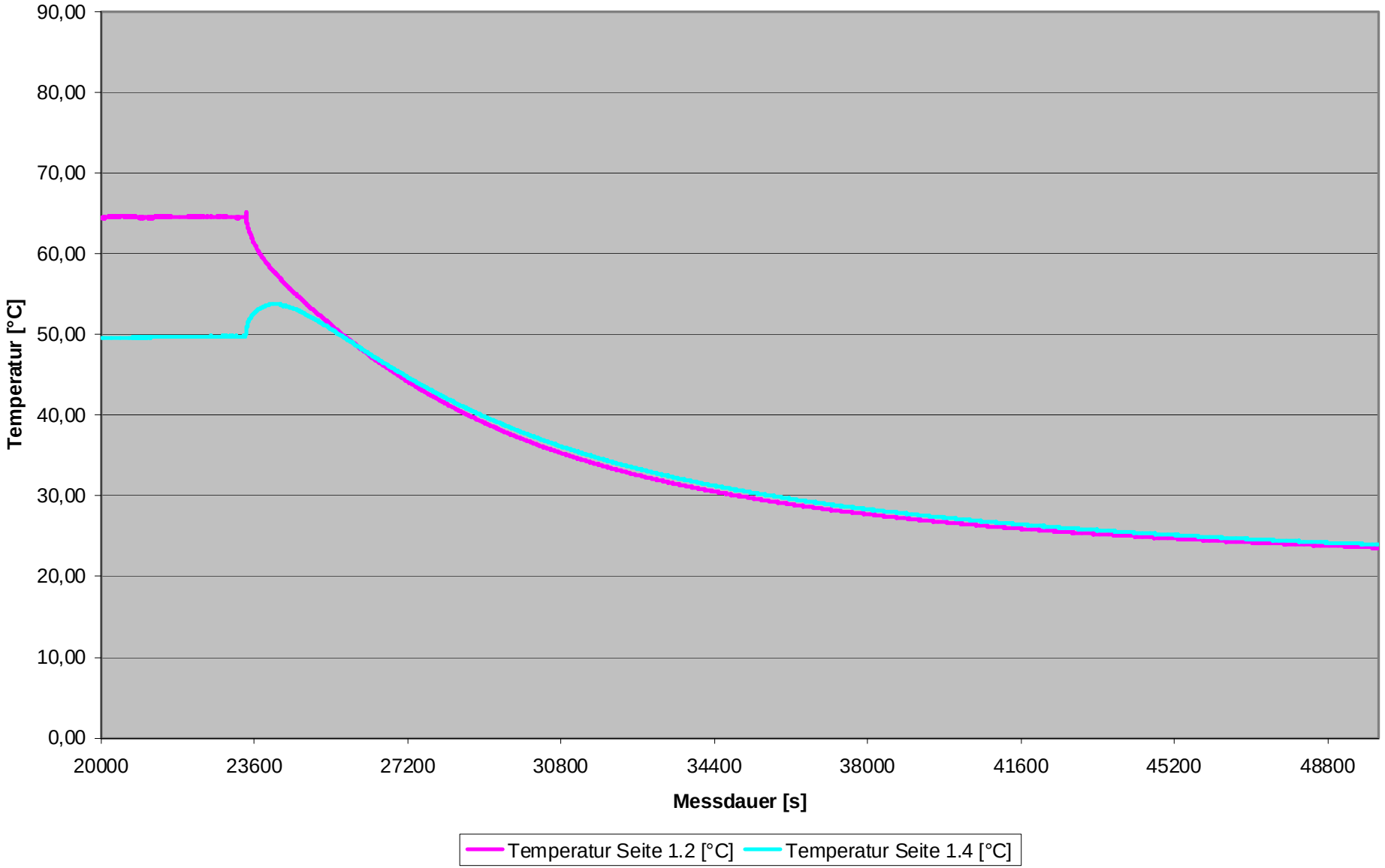
Rad R0011 aktuelles Rad: 25kN/10 km/h, TempV.:B Erwärmung



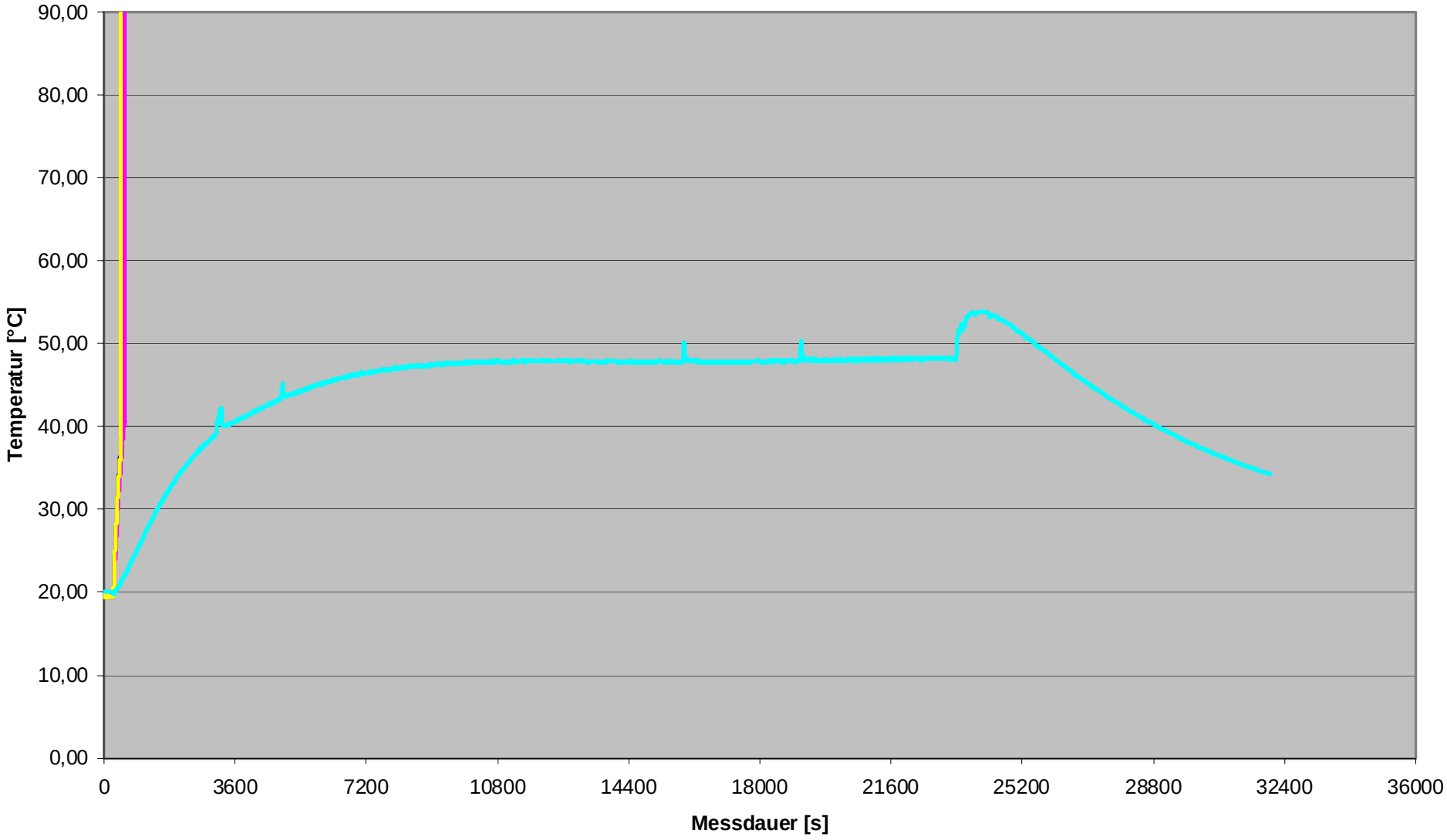
Rad R0031 InnoRad Typ 1: 25kN/10 km/h, TempV.:A Erwärmung



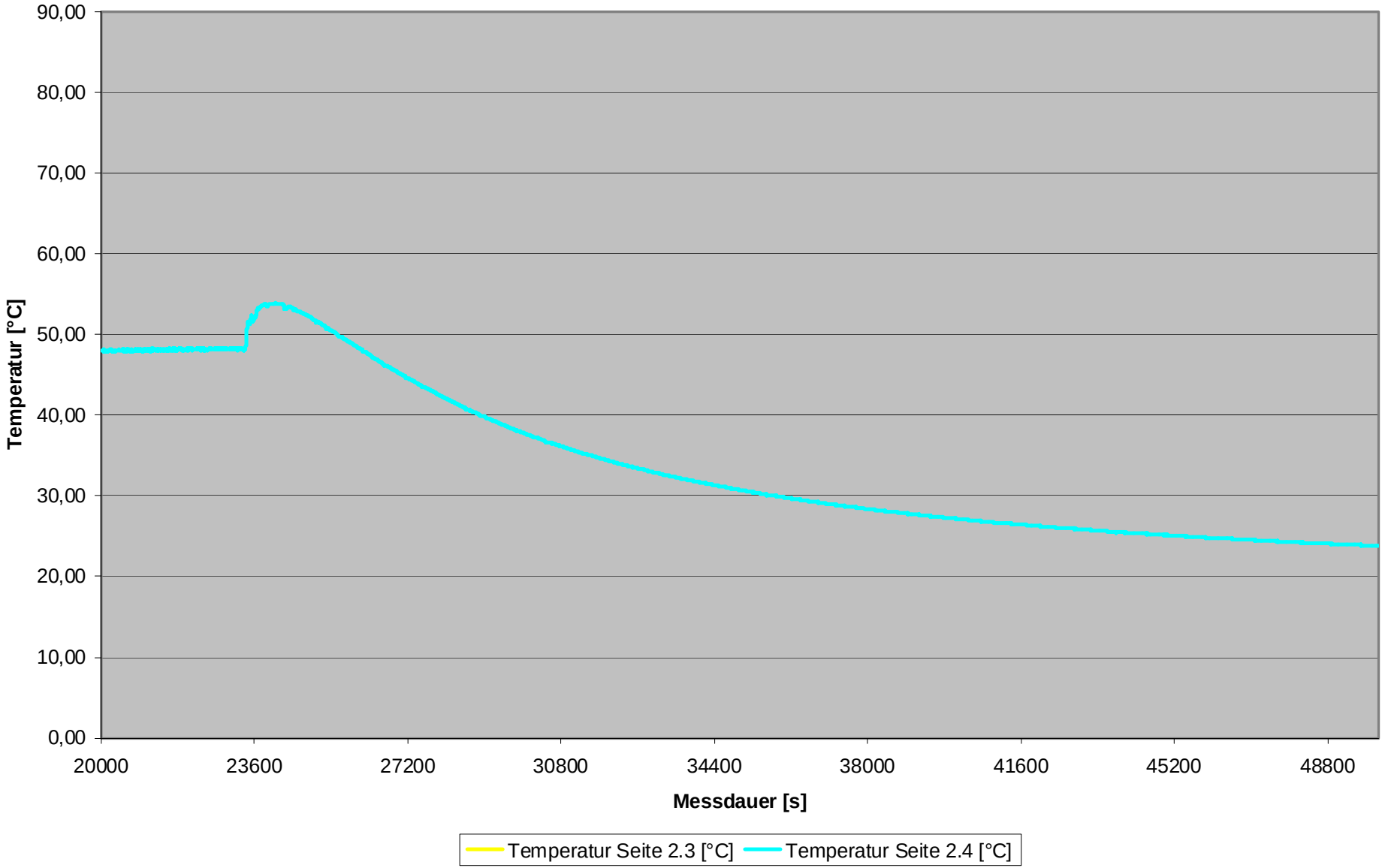
Rad R0031 InnoRad Typ 1: 25kN/10 km/h, TempV.:A Abkühlung



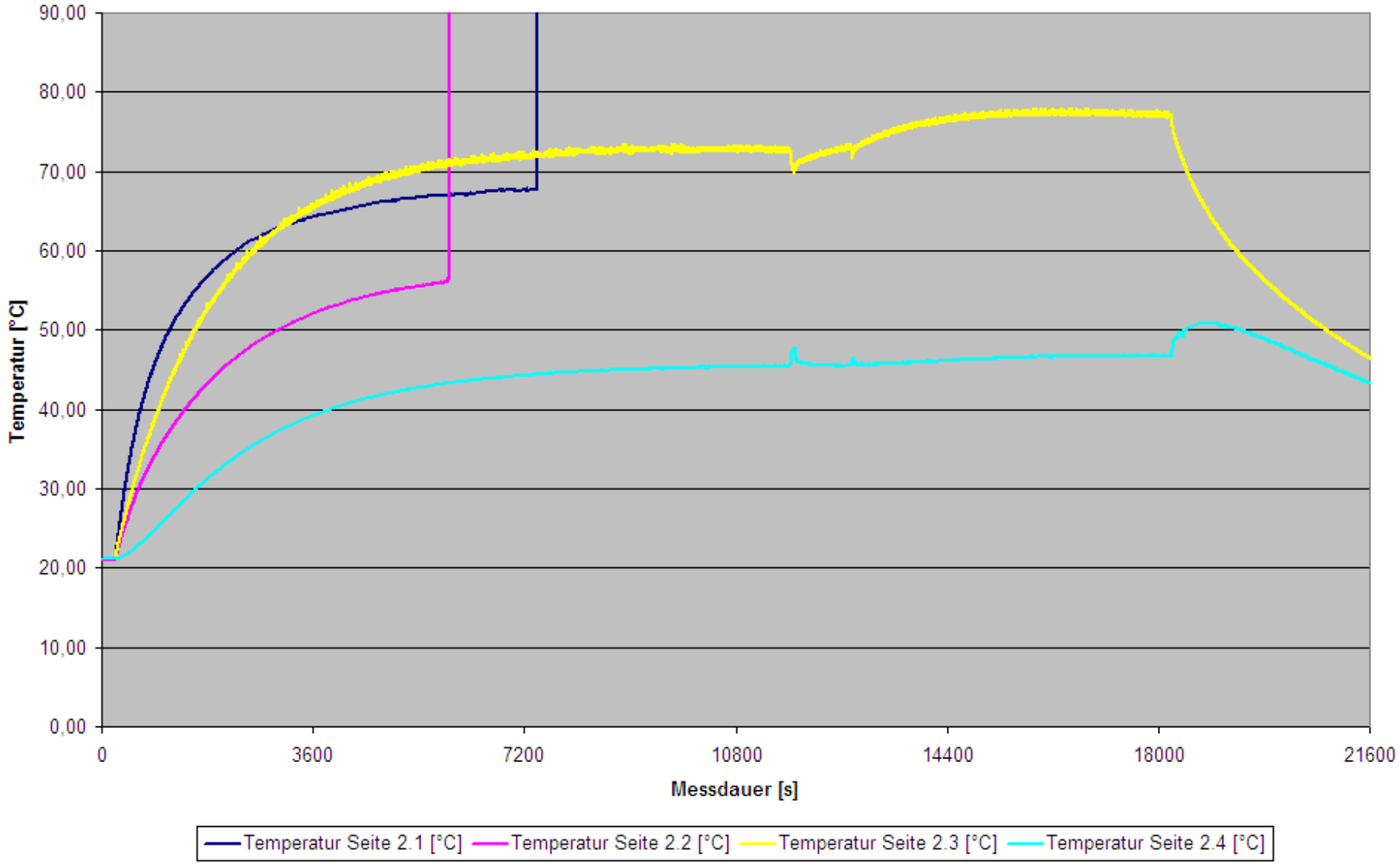
Rad R0028 InnoRad Typ 1: 25kN/10 km/h, TempV.:B Erwärmung



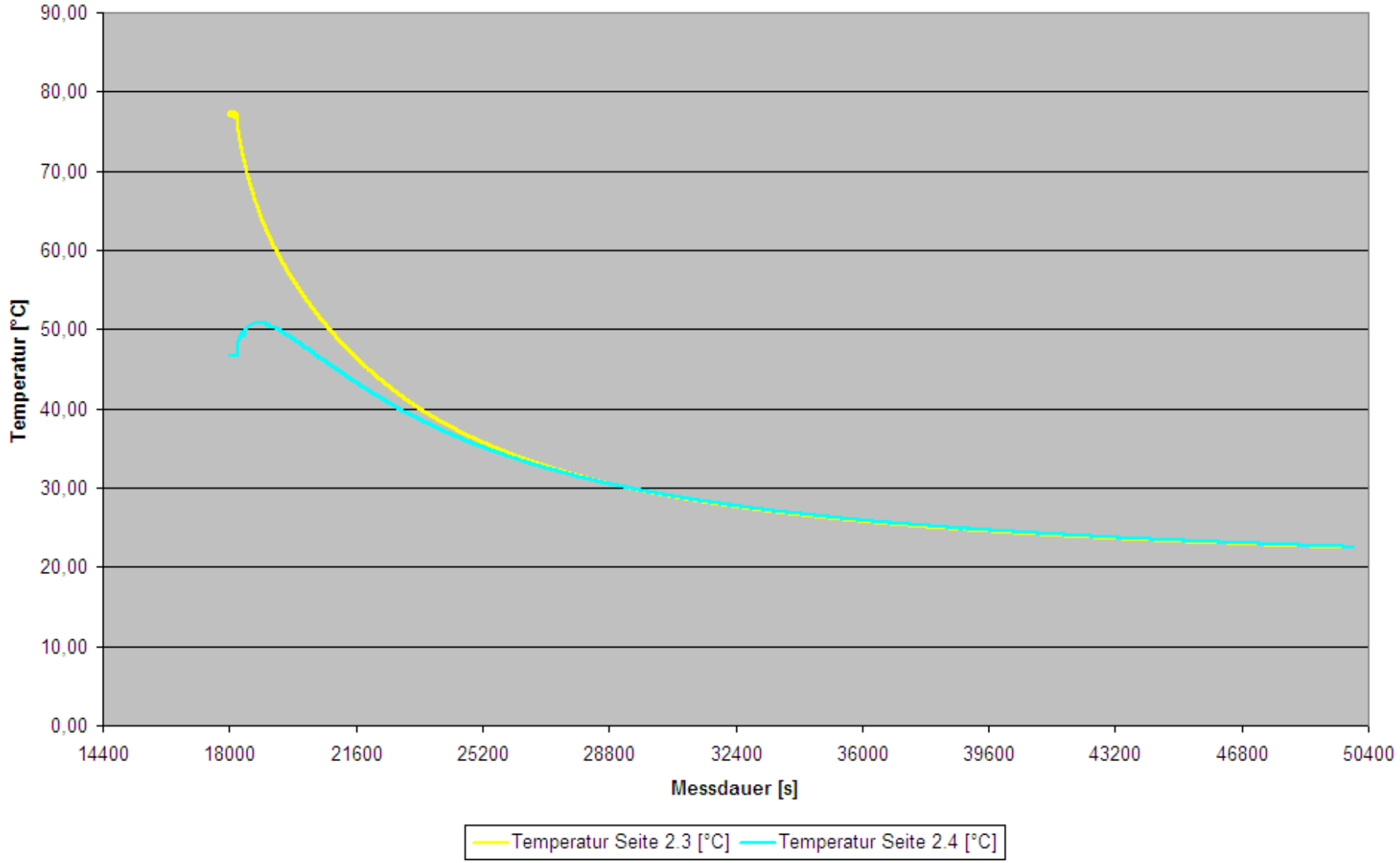
Rad R0028 InnoRad Typ 1: 25kN/10 km/h, TempV.:B Abkühlung



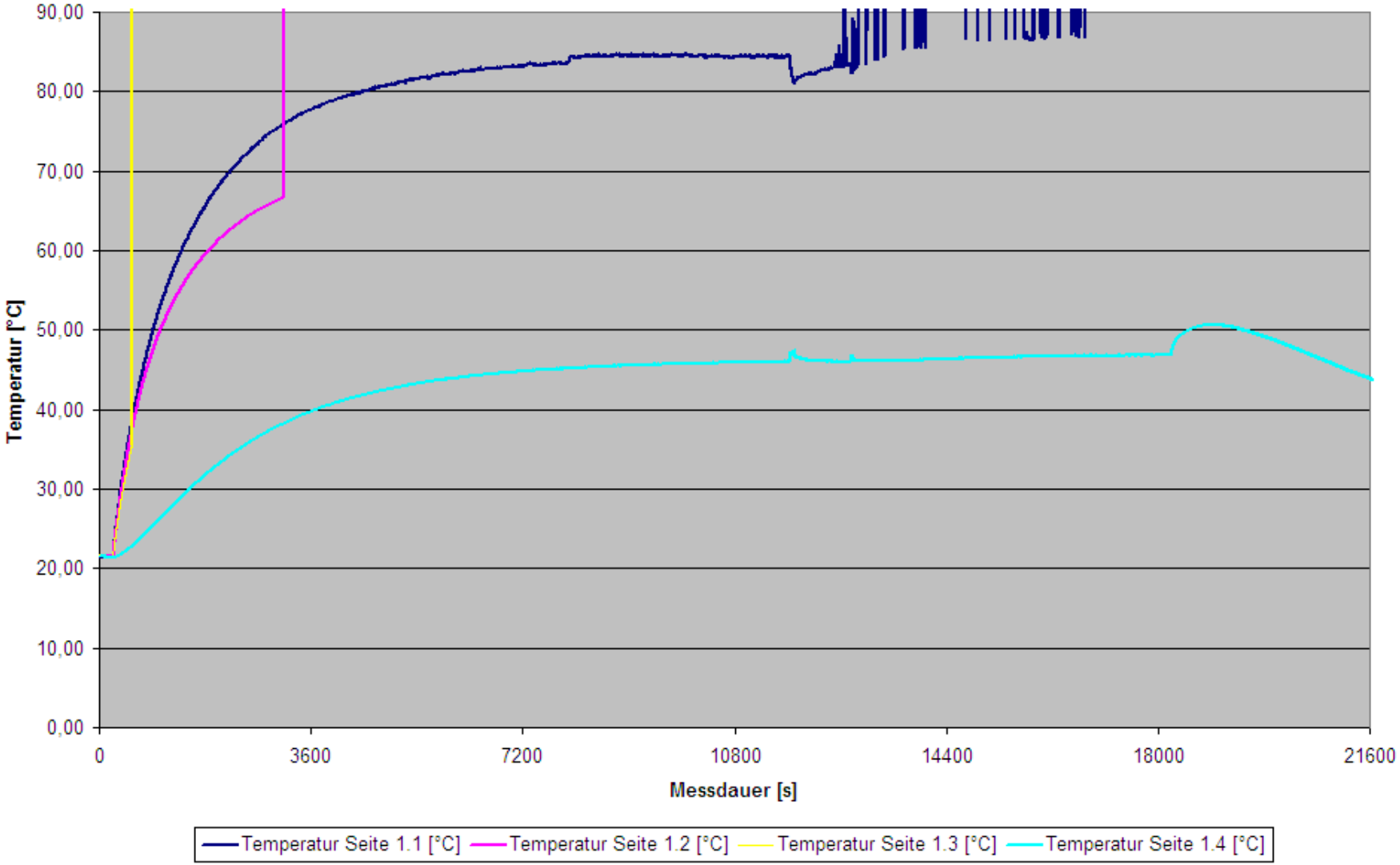
Rad R0040 InnoRad Typ 2: 25kN/10 km/h, TempV.:A Erwärmung



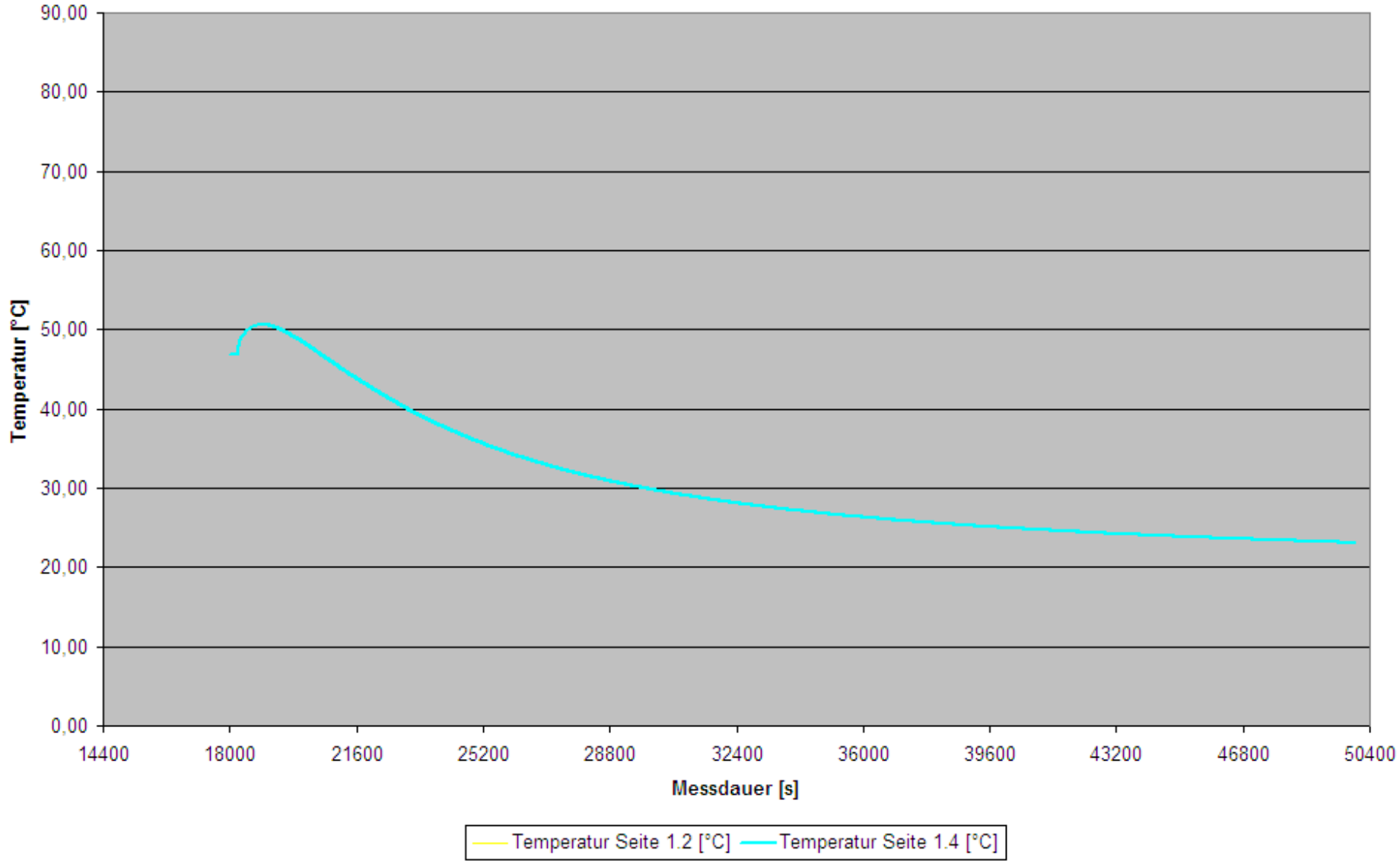
Rad R0040 InnoRad Typ 2: 25kN/10 km/h, TempV.:A Abkühlung



Rad R0032 InnoRad Typ 2: 25kN/10 km/h, TempV.:B Erwärmung



Rad R0032 InnoRad Typ 2: 25kN/10 km/h, TempV.:B Abkühlung



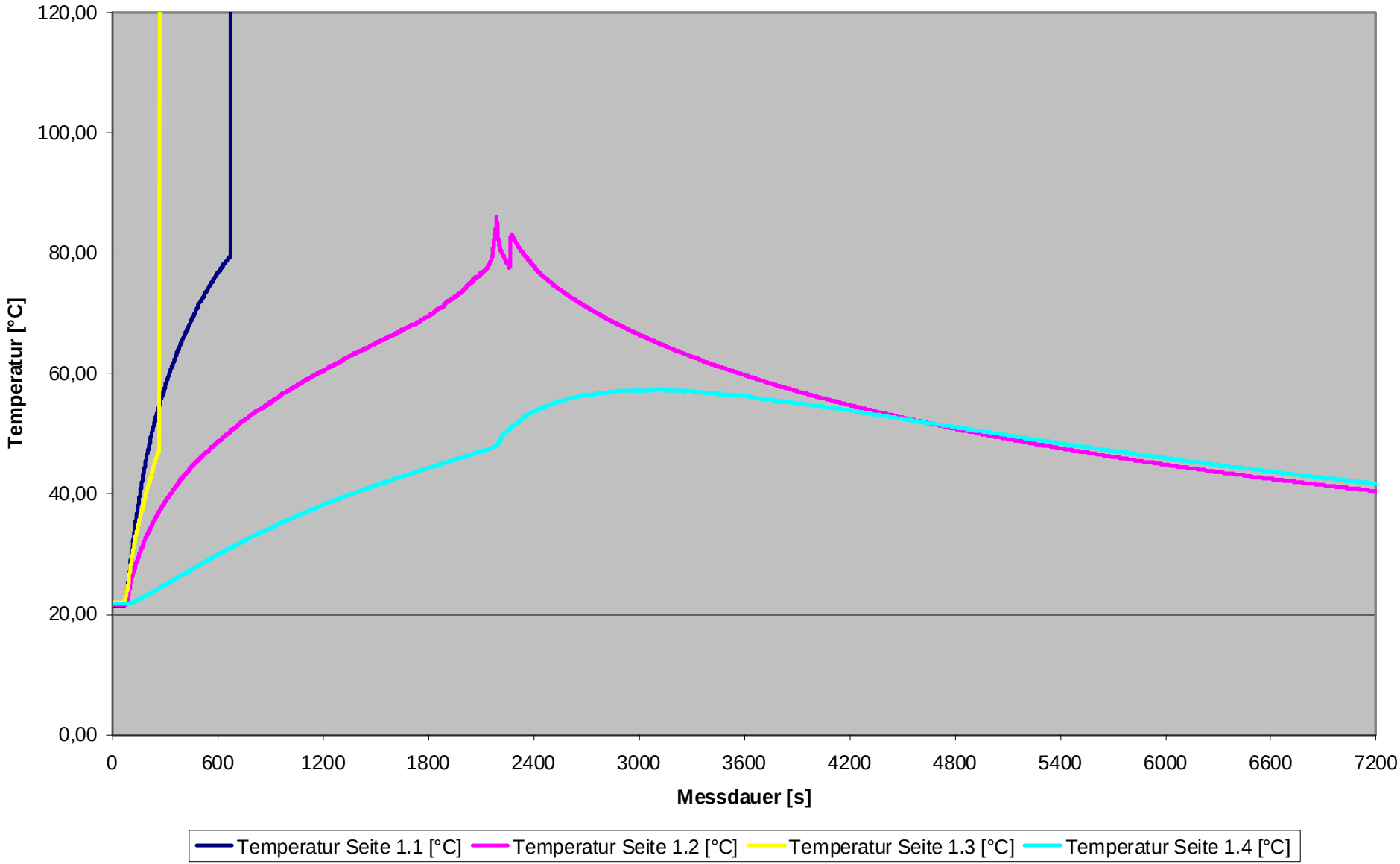
BMBF-Projekt Innorad: Prüfbedingung

Konstante Fahrt mit 16km/h bei 30000N Radlast
Zerstörung des Rades

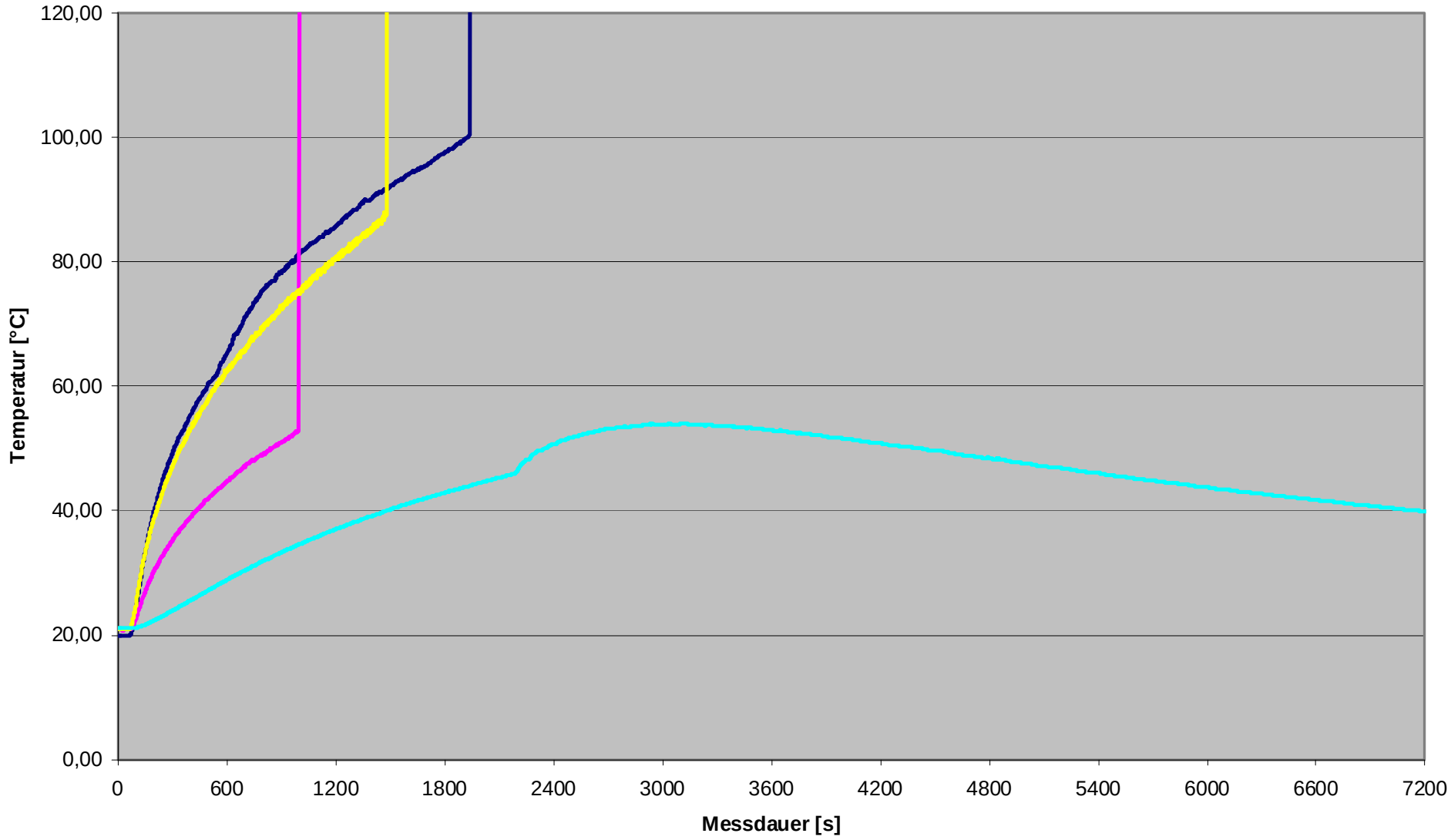
Lebensdauern:

aktuelles Rad:	35:28 min
	33:40 min
InnoRad Typ 1:	30:49 min

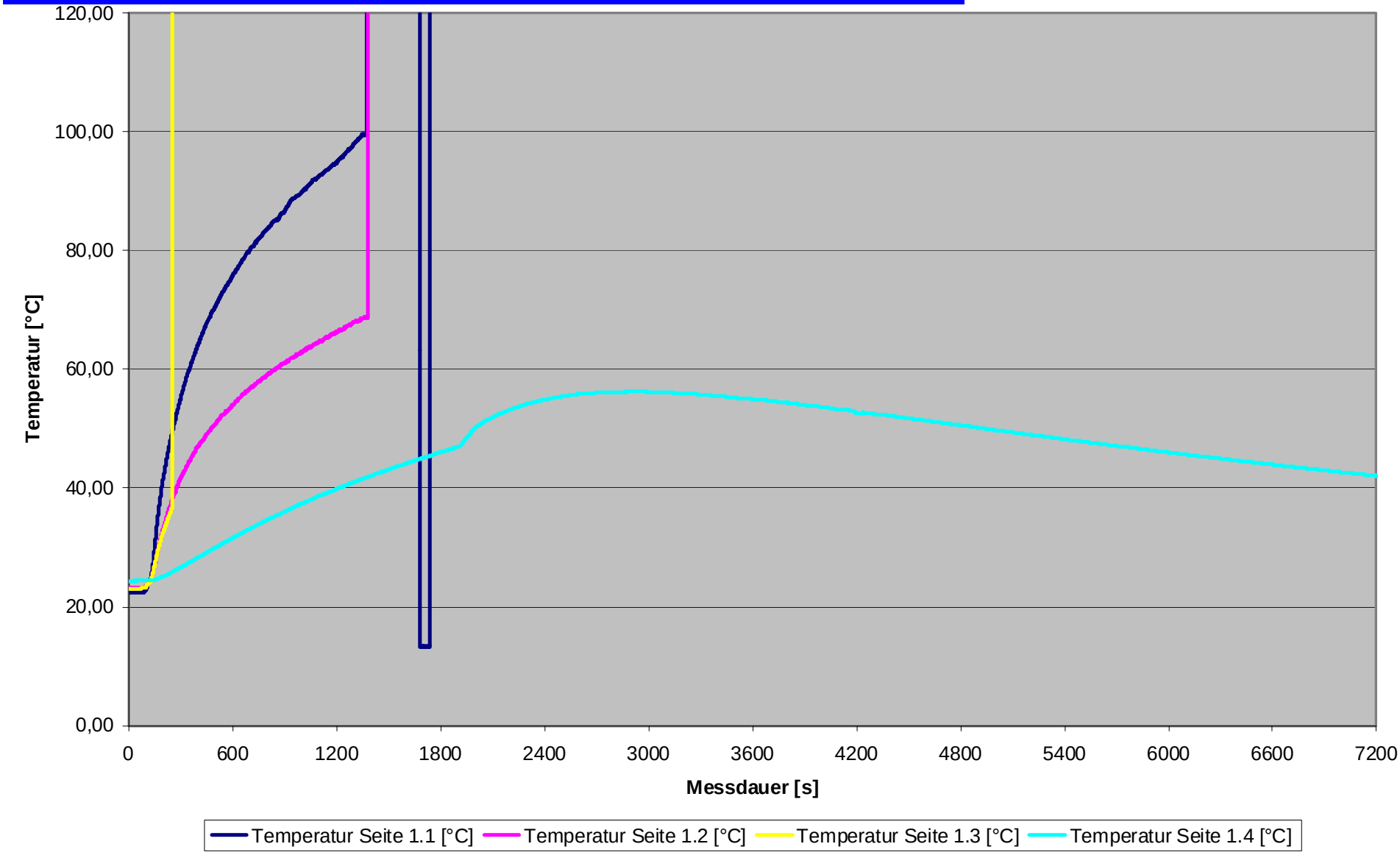
Rad R0015 akt. Rad: 30kN/16 km/h, TempV.:A 35:28min



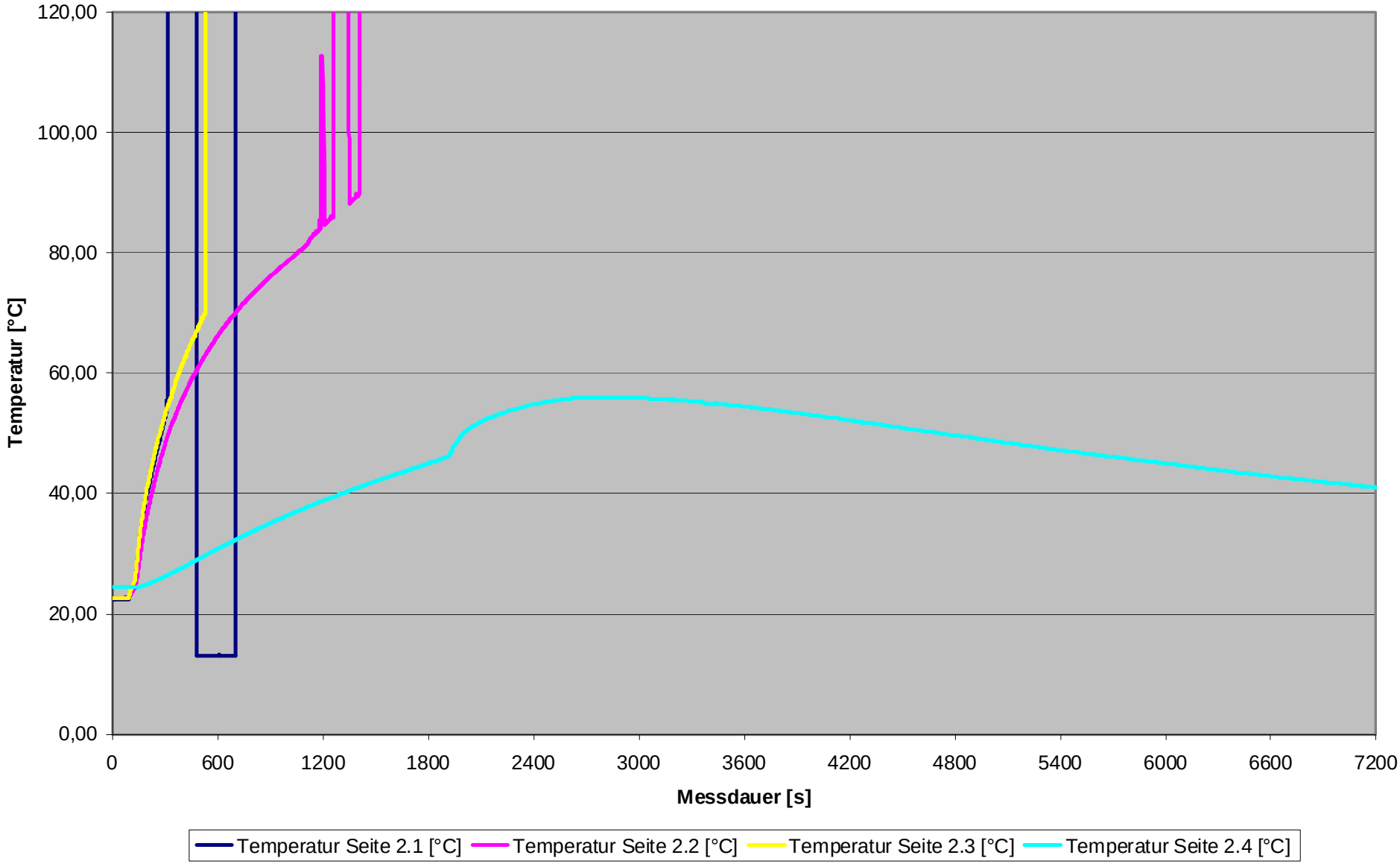
Rad R0012 akt. Rad: 30kN/16 km/h, TempV.:A



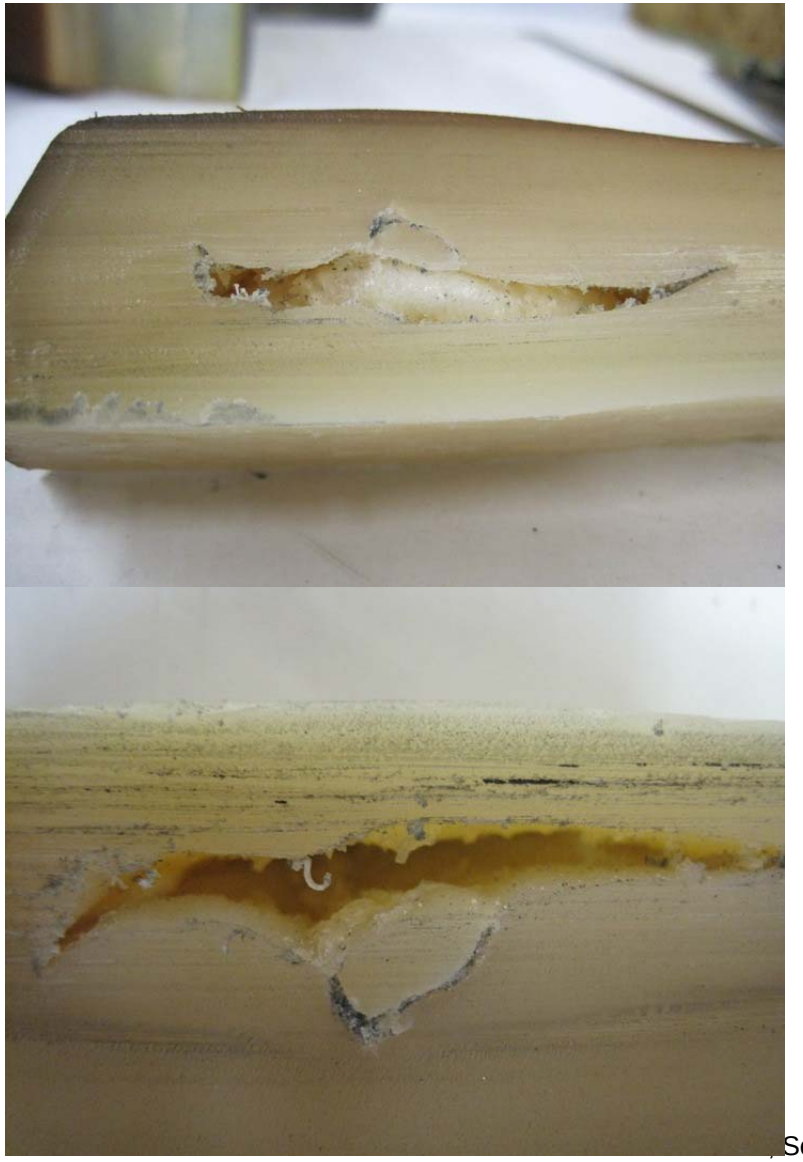
Rad R0031 InnoRad Typ 1: 30kN/16 km/h, TempV.:A



Rad R0028 InnoRad Typ 1: 30kN/16 km/h, TempV.:B 30:49 min



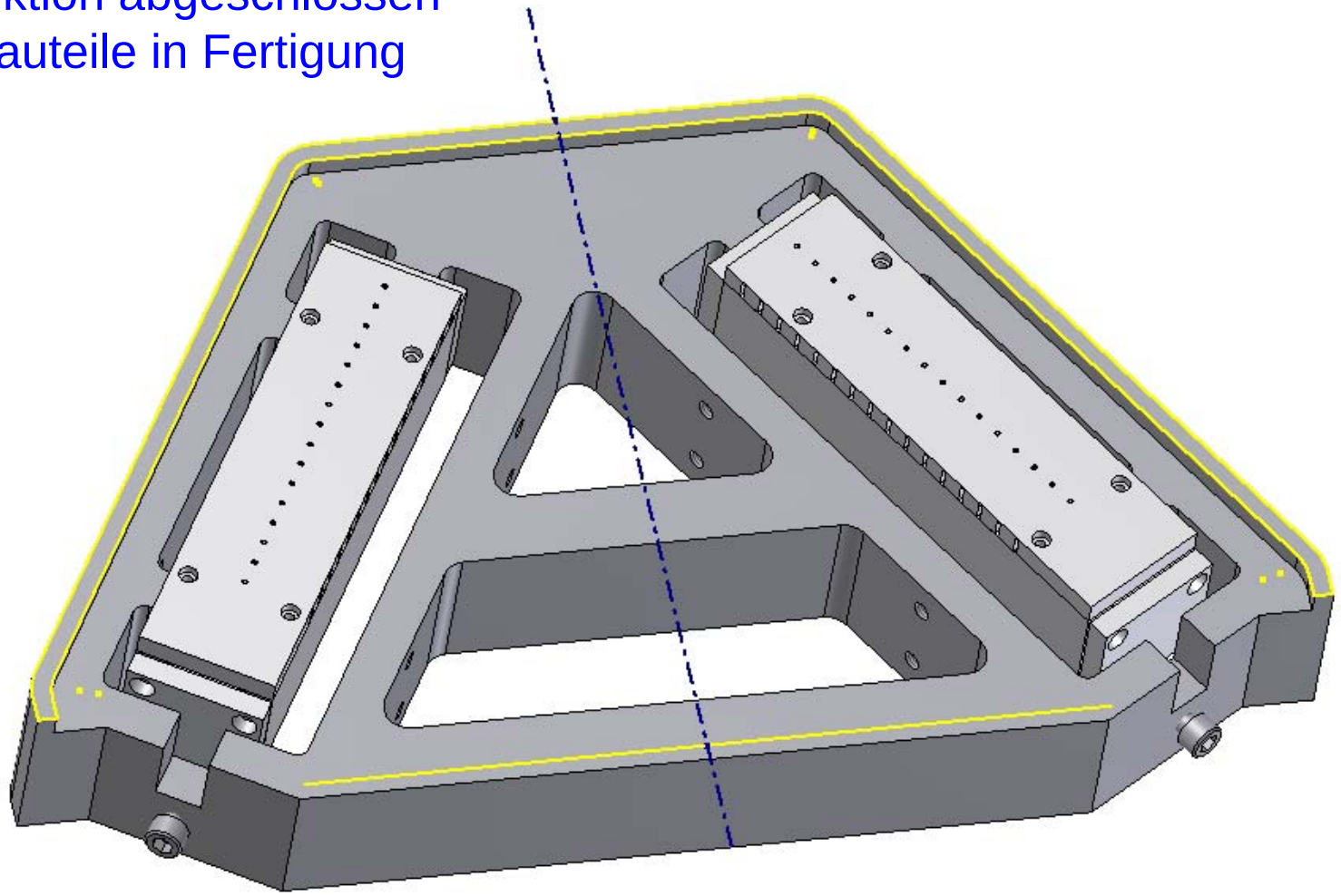
BMBF-Projekt Innorad: zerstörtes Rad



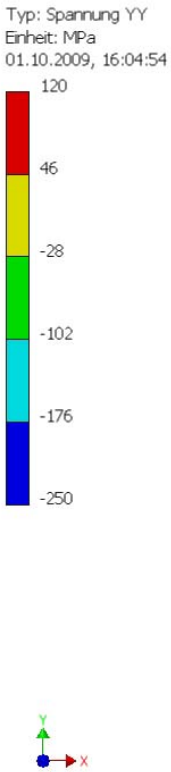
BMBF-Projekt Innorad: Felgengeometrie

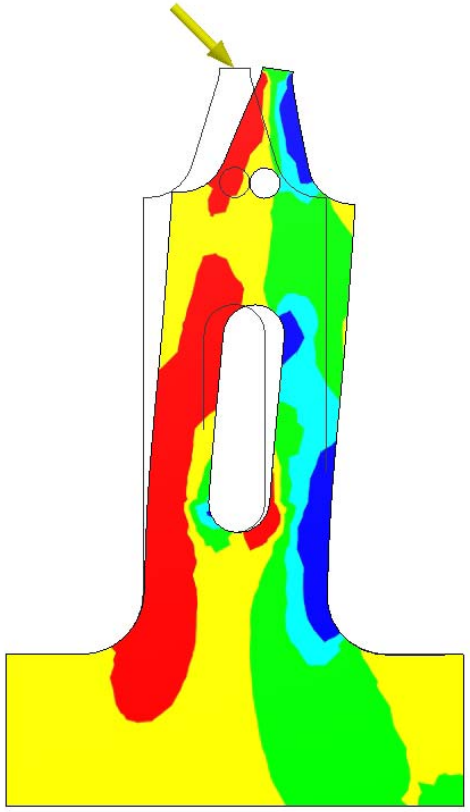
BMBF-Projekt Innorad: Prüfstand II

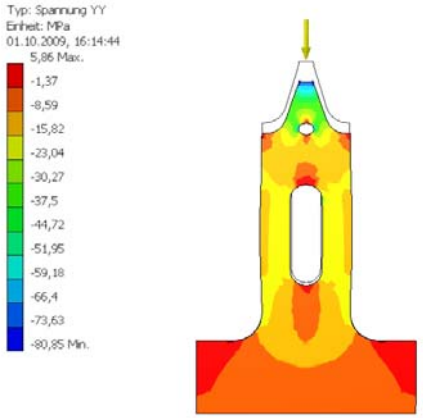
Konstruktion abgeschlossen
Erste Bauteile in Fertigung

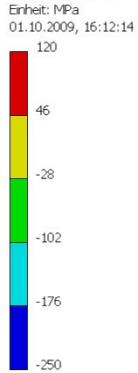


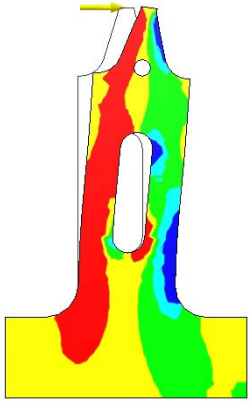
BMBF-Projekt Innorad: Prüfstand II



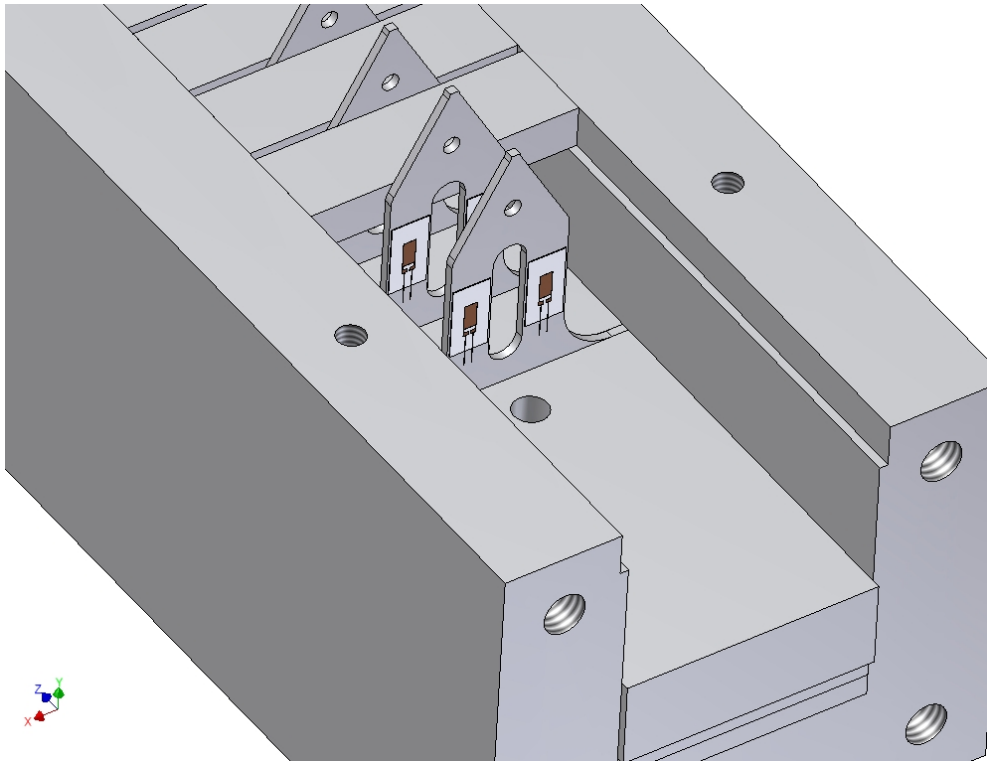


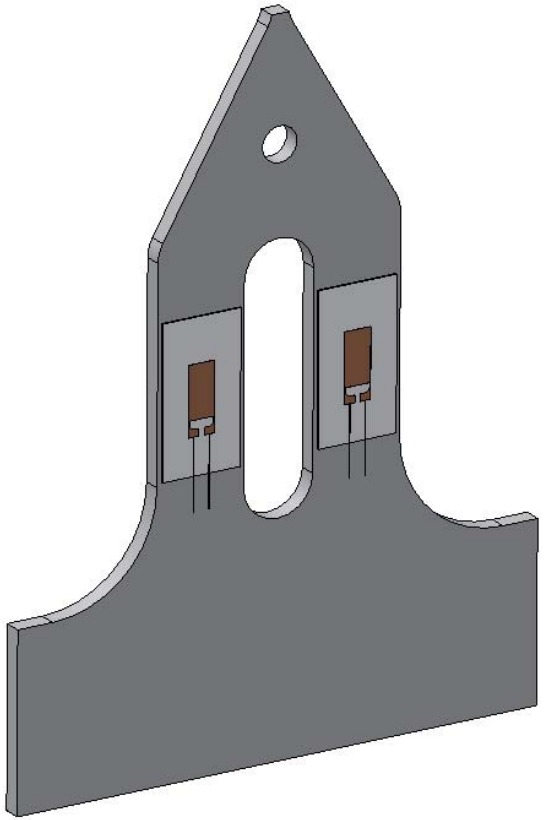




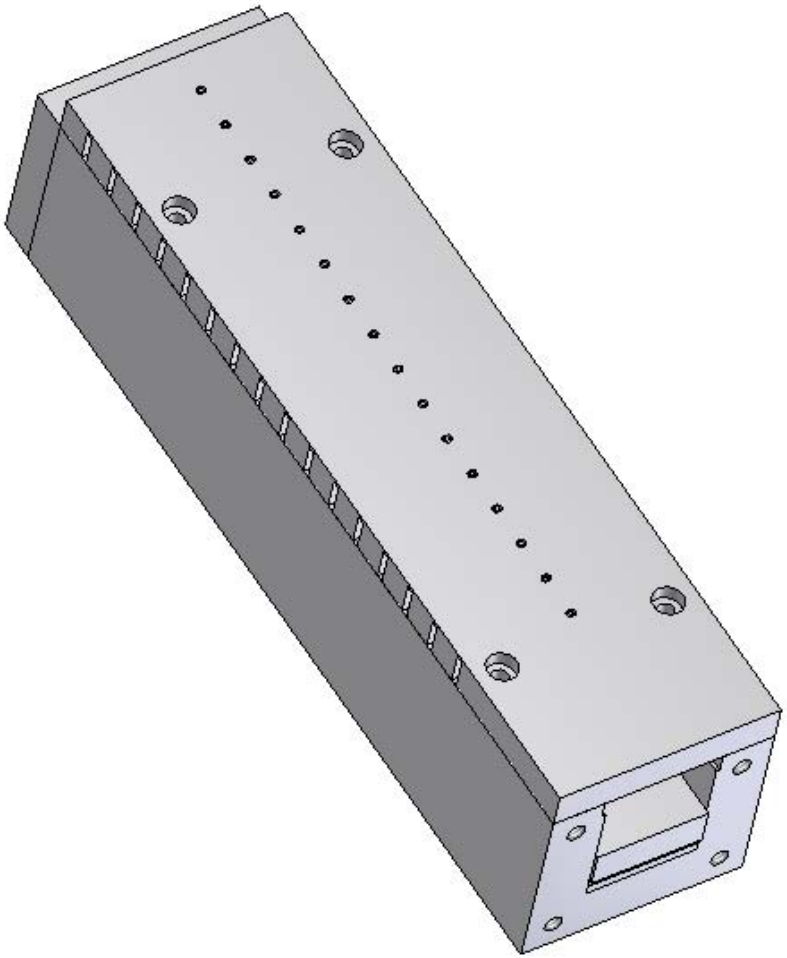


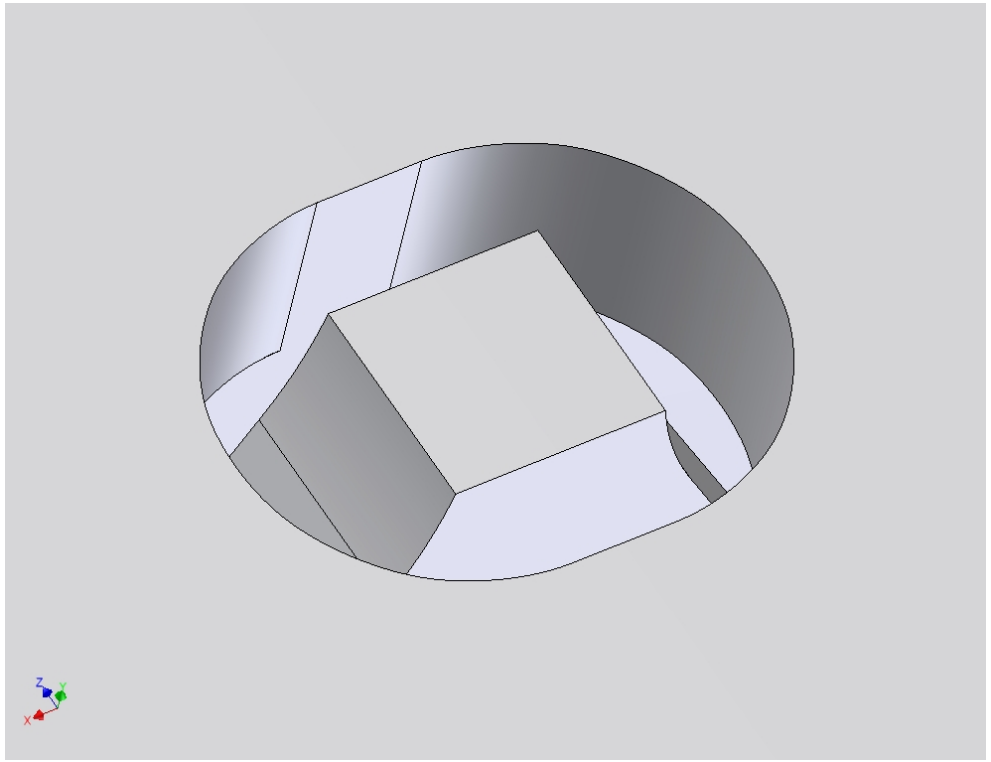
BMBF-Projekt Innorad: Prüfstand II





BMBF-Projekt Innorad: Prüfstand II





Messspitze Dimension 1x1 mm
Öffnung der Messspitze:
Langloch 2x2,5 mm

Weiteres Vorgehen ??
Versuchsplanung / -reihenfolge ??