APOLLIT ファイル

■ APOLLIT ファイルは，プラスチック，ゴム，繊維の製造，処理工程，応用，技術的性質，およびポリマーの物理的化学的性質に関する科学技術文献を収録した文献データベースである.

- ➢ 収録内容 ： プラスチックの生産と加工，ポリマーの物理・応用，半加工製品，技術的性質，試験法など
- ➢ 収録源 ： 雑誌（96%），会議録，単行本など
- ➢ 収録期間 ： 1973 年以降
- ➢ 更新 ： 毎週
- ➢ 特長 ： 英語（/CT）とドイツ語（/CTDE）の統制語のオンラインシソーラスが利用可能

■ レコード例

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AN    2004:14407  APOLLIT  Full-text
TI    Effects of damage thresholds on stresses in composite laminates under transverse
      impact
AU    Jiang Dazhi; Shu Dongwei (School of Mechanical and Production Engineering, Nanyang
      Technological University, 50 Nanyang Avenue, 639798, Singapore (SG))
SO    Composite Structures (2004) v. 66(1-4), p. 61-67
      Conference: ICCS 12: 12. international conference on composite structures,
      Melbourne (Australia), 19-21 Nov 2003
      CODEN: COMSE2  ISSN: 0263-8223
DT    Journal; Conference
LA    English
AB    Studies on stresses and damage in fiber reinforced polymeric matrix composite
      laminates subjected to transverse impact are conducted by a 3D finite element
      analysis. The stress analysis is carried out by developing a constitutive equation
      including damage variables, therefore, effects of damage and damage thresholds on
      the stresses in the laminates can be investigated. Effects of damage threshold of
      matrix materials on stresses suggest suitable matrix materials for composite
      laminates, which could improve damage tolerance of the composite laminates, and
      resistance of the composite laminates to impact could be improved significantly by
      increasing the damage threshold. (orig.)
CC    *5410 Glass fiber-reinforced plastics
       1230 Epoxy resins
       6240 Deformation behaviour
CT    CALCULATIONS; DAMAGES; DEFORMATION; DELAMINATION; EPOXY RESINS; FIBER-REINFORCED
      PLASTICS; FINITE ELEMENT METHOD; GLASS FIBER-REINFORCED PLASTICS; IMPACT STRENGTH;
      LAMINATES; LONG FIBER REINFORCEMENT; MODELS; PLATES; SHOCK RESISTANCE; STRESS,
      MECHANICAL; TENSION; THEORY
ST    fiber composites; laminated plates; GFR/epoxy
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EMA ファイル

■ EMA ファイルは，セラミックス材料，複合材料，高分子材料の開発，処理，生産に関する文献データベースである．

- ➢ 収録内容 ： 組成および構造硬化，物理的・電気的・磁気的性質，機械的性質，材料開発，原料，熱処理，構造解析，粉末技術，表面仕上げ，成型・加工など
- ➢ 収録源 ： 雑誌，特許，会議録，単行本など
  （Engineered Materials Abstracts のオンライン版）
- ➢ 収録期間 ： 1986 年以降
- ➢ 更新 ： 毎月

■ レコード例

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AN    1991(6):E1-P-361  EMA  Full-text
TI    Development of "Toughmold", Heat Resistant Resin Compound With Aluminum
      Alloy Powder for Injection Molding.
CS    Toyo Aluminium
SO    Alutopia (Japan) (May 1990) 20, (5) p. 49-59
      ISSN: 0285-5240
DT    Journal
LA    Japanese
AB    A new plastic injection molding, mold making technique was developed.
      AlSiCu family alloy powders, which provide high strength, tenacity, heat
      and wear resistance, are used. For the bonding material, imide epoxy was
      used. Hot pressing was applied to produce the tough mold, at 180 deg C x
      50 kg/cm exp 2 over 30 min. A SEM photograph of the 76% Al alloy specimen
      cross section is shown. The Al alloy used has lower coefficient of
      thermal expansion than pure Al (22 vs. 24) x 10 exp 6 . This coefficient
      is plotted from RT to 200 deg C along with other properties tabulated
      accordingly. Regarding the mold manufacturing technique, molybdenum
      disulfide is double painted over internal surface of metal frame. Fluid
      silicone based lubricant is sprayed over the master model. Powder metal
      is filled in the tough mold up to certain limit and hot pressing takes
      place, followed by removal of master model. Forming conditions include:
      50 kg/cm exp 2 pressure at 180 deg C over 30 min. Graphs,
      Photomicrographs. 3 ref.S.S.
CC    P Polymers; E1 Casting and Molding; P-E1
CT    Polymers: Molding (process); Injection molding; Molds: Materials
      selection
ET    Al*Cu*Si; Al sy 3; sy 3; Cu sy 3; Si sy 3; AlSiCu; Al cp; cp; Si cp; Cu
      cp; Al
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RAPRA ファイル

■ RAPRA ファイルは，ゴム，プラスチック，接着剤，高分子化合物に関する文献および企業ディレクトリ情報を提供する文献データベースである.

- ➢ 収録内容 ： 添加剤および組成物成分，高分子合成・応用，化学的変性，環境への影響，成形技術，試験，労働災害および毒性学，市場統計，企業情報など
- ➢ 収録源 ： 雑誌，特許，会議録，単行本，規格など
- ➢ 収録期間 ： 1972 年以降
- ➢ 更新 ： 隔週

■ レコード例

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AN    R:916511  RAPRA    FS  Rapra Abstracts; Adhesives Abstracts  Full-text
TI    RADIATION HARDENABLE ADHESIVE COMPOSITION CONTAINING DISPERSED NATURAL
      RUBBER FINE PARTICLES.
IN    Hirasawa A
PA    Toppan Forms Co.Ltd.
PI    EP 1398360  A1  20040317
DS    AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HU; IE; IT; LI;
      LU; MC; NL; PT; RO; SE; SI; SK; TR; AL; LT; LV; MK
AI    EP 2003-715407  20030326
PRAI  JP 2002-91071  20020328; JP 2002-91072  20020328; JP 2002-159469
      20020531
DT    Patent
LA    English
IC    ICM   C09J004-00
      ICS   C09J107-00; C09J007-02; B42D015-02; G09F003-00
AB    An adhesive composition, which comprises natural rubber based particles
      uniformly dispersed in a radiation setting compound, is cured by
      radiation to make a pressure-sensitive adhesive layer on a substrate.
      Sufficient adhesiveness is obtained, different fillers are sufficiently
      charged, drying time after application is short and overall application
      and pattern application are readily performed. Application can be
      performed on different substrates and sufficient adhesive strength
      between the substrate and the pressure-sensitive adhesive layer can be
      achieved. This adhesive composition may be manufactured by mixing an
      aqueous emulsion containing the natural rubber based particles and the
      radiation setting compound, elevating the temperature of the mixture
      while stirring, removing vapourised water in the aqueous emulsion and
      replacing the water as the medium.
CC    41C1; 6A1
SC    *ADAHP; ADANR
CT    ADHESION; ADHESIVE; AQUEOUS EMULSION; COMPANIES; COMPANY; COMPOSITION;
      CURING; DEGREE OF DISPERSION; DISPERSIVITY; DRYING TIME; ELASTOMER;
      EMULSION; FILLER; HEATED; HEATING; MIXING; NATURAL RUBBER; NR; PARTICLE;
      PATTERNED; PRESSURE-SENSITIVE ADHESIVE; RADIATION CURING; RUBBER;
      STIRRING; SUBSTRATE; TECHNICAL; WATER REMOVAL
SHA   PRESSURE SENSITIVE ADHESIVES, NR; NATURAL RUBBER, pressure sensitive
      adhesives
GT    EU; EUROPEAN COMMUNITY; EUROPEAN UNION; JAPAN; WESTERN EUROPE-GENERAL
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